

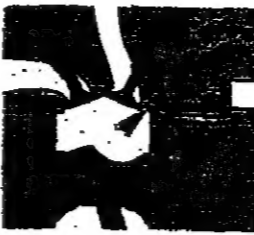
FINANCIAL TIMES



The fall of Barings
Disaster
of Customer

Art of the memo
"Ace" Greenberg's
humble oeuvre

Lucy Kallaway, Page 12



Direct injection
New MMC engine
in quantum leap

Technology, Page 21



Today's survey
International
Telecommunications

Survey, Separate section

World Business Newspaper <http://www.FT.com>

THURSDAY SEPTEMBER 19 1996

EU may risk breach of beef export rules

The European Union risks breaching internationally agreed beef export limits because of falling European demand sparked six months ago by fears over mad cow disease. It could bring increased pressure for radical reform of the Common Agricultural Policy aimed at curbing beef production. The warning is split out by the Irish presidency in a paper prepared for EU farm ministers who are to meet early next week at Killarney, Ireland.

Fears over insider trading: The US Securities and Exchange Commission fears that power to enforce rules governing insider trading could be affected because of a ruling which may narrow the definition of insider trading in US courts. Page 5

US in talks with Kurd leader: Massoud Barzani, the Kurdish leader allied to Iraq, is in Turkey for talks with Robert Pelletreau, the US assistant secretary of state for near eastern affairs, and Turkish leaders. Page 8

VW in \$1bn Beetle plant: Volkswagen aims to invest \$1bn in a new factory at Puebla, near Mexico City, for the "New Beetle", a successor to the famous 1930s model. The car will be launched in 1997. Page 6

Israel criticised over homes approval: Israeli defence minister Yitzhak Mordechai was criticised by Palestinians and peace activists for approving a plan to build nearly 2,000 homes in Mattityahu, a Jewish settlement in the West Bank.

Laidlaw sale to raise \$1.7bn: Ontario-based waste and transport services group Laidlaw will get almost US\$1.7bn for its solid waste business from Allied Waste Industries of Arizona. Page 18

California acts over child molesters: California became the first US state to force serial child molesters to have their sex drive lowered with drugs. Offenders will be given injections after leaving prison on parole.

Manila warned over mining: Leading mining companies have warned the Philippine government that its commitment to develop the country's vast gold reserves - the seventh largest in the world - would be at risk if it bowed to pressure from domestic environmental groups. Page 14

Tax bill test for Menem: Argentine president Carlos Menem's ability to rally his Peronist party was tested as senior politicians tried to push through a tough austerity bill aimed at raising \$50m more in taxes each year. Page 5

Korean infiltrators shot dead:



Eleven North Korean infiltrators who were found dead had been shot, possibly by one of their number who then used the gun on himself, South Korea's defence ministry said. A twelfth was captured alive and another eight or nine were still at large. They are all thought to have been put ashore by a submarine (above). Page 4

Tambrands to close plants: US Tampax maker Tambrands revealed plans to close factories in Ireland and France but to expand its plant in England in a streamlining operation. The restructuring will bring pre-tax savings of \$20m a year from 1998. Page 18

Papon to stand trial: A French appeals court ordered former cabinet minister Maurice Papon, 86, to stand trial for crimes against humanity. He is accused of sending 1,690 Jews, including 223 children, from wartime France to their deaths in Nazi extermination camps.

Fund manager ousted: Peter Young, the Morgan Grenfell fund manager suspended after being accused of "gross misconduct", has been dismissed, the company said. Page 15

FT.com: the FT web site provides online news, comment and analysis at <http://www.FT.com>

STOCK MARKET INDICES	
New York: Dow Jones Ind. Av.	5,873.25 (+15.54)
NASDAQ Composite	2,044.42 (+1.11)
Europe and Far East	
UK: FTSE 100	3,855.7 (-16.0)
Nikkei	21,186.75 (-153.84)

US LUNCHTIME RATES	
3-mth Treas. Bill	5.25%
Long Bond	7.00%

OTHER RATES	
UK 3-mth Interbank	5.50% (54.74)
UK 10 yr Govt	9.75% (9.75)
France 10 yr Govt	10.50% (10.50)
Germany 10 yr Govt	10.25% (10.25)

NORTH SEA OIL (Argence)	
Brent Dated	\$22.45 (21.9)

GOLD	
New York: COMEX	\$380.3 (380.1)
London: close	\$383.3 (383.45)

DOLLAR	
New York: DML	1.5905
DM	1.5905 (1.591)
FF	1.3389 (1.341)
SFR	1.2407 (1.243)
Y	109.07 (110.5)
Tokyo close	Y 110.30

STERLING	
DM	2.3637 (2.364)

Deficit increases by 43% as imports of cars, oil and electronics soar

US trade gap jumps to \$11.7bn

By Nancy Dunne in Washington

The US trade deficit in goods and services deteriorated markedly in July, resulting in the worst monthly showing since the government began issuing combined merchandise and services trade figures in 1992.

The poor results are one of the weaknesses in the glowing economic picture President Bill Clinton paints on the campaign trail for the November elections.

The deficit soared by 43 per cent during the month to \$11.7bn as imports of cars, electronics and oil surged and aircraft exports fell. The Commerce department said.

Mr Robert Lighthizer, an adviser to Senator Robert Dole, the Republican presidential candidate, said the trade deficit is "a glaring deficiency in Clinton's record that goes to the heart of middle-class anxiety in this country".

Mr Mickey Kantor, Commerce secretary and a leading Clinton campaign adviser, put the best interpretation on the figures, hailing the "prospects for long-term improvement" as exports to Japan rise, the trade deficit with Mexico stabilises, and the rise in the deficit with China slows.

A sharp fall in aircraft exports, which are notoriously volatile, contributed significantly to the deterioration. Foreign sales fell by \$686m in

July to \$558m. Commerce also blamed "the underlying strength of the US economy", which spurs demand for consumer goods imports.

But many economists say the overall trend is deteriorating, and will drag on the economy in the third quarter. The figures also raise doubts about the effectiveness of the Clinton administration's aggressive export strategy to restore lost manufacturing jobs.

The trade picture was disappointing in almost every market. Trade balances eroded with every country except Canada and Mexico. The balance with Western Europe widened to a record \$4.2bn from \$3.8bn in June. The deficit with Japan,

which has been falling, widened by \$1.1bn to \$4.3bn. However, Japanese trade figures for August, also published yesterday, showed the fall resuming.

Imports from China hit a record \$4.8bn, a 17 per cent rise led by an increase of \$252m in toys and games, \$159m in clothing and \$108m in footwear.

Oil imports jumped 10 per cent to \$4.7bn, the highest monthly total since October 1990.

The goods deficit increased by \$2.9bn in June to \$17.5bn, while the services surplus decreased by \$0.6m from June to \$4.5bn. However, the Coalition of Service Industries said the sector is on track to break

its record yearly level of \$65.3bn in 1995.

Exports of travel and transportation fell, while exports of royalties and licensing fees and "other private services" - including financial services, education, telecommunications and insurance - rose.

Mr Larry Chimerine, of the Economic Strategy Institute, a Washington think tank, said the US deficit, particularly with Asia, is now structural and unaffected by exchange rates, macroeconomic conditions or growth in other countries.

Japanese surplus falls, Page 4
Currencies, Page 23
World stocks, Page 34

Ex-chairman of Olivetti regains control

By Andrew Hill in Milan and Paul Taylor and William Lewis in London

Mr Carlo De Benedetti yesterday regained full control over the board of Olivetti after Mr Francesco Calo resigned as chief executive of the Italian information technology group.

The board voted unanimously to nominate Mr Roberto Colaninno, chief executive of Sogefi, the Italian automotive components company, in Mr Calo's place. Mr De Benedetti's quoted holding company, owns 57 per cent of Sogefi and 15 per cent of Olivetti.

Olivetti's share price has fallen more than 30 per cent in the two weeks since Mr Calo took tighter control of the group, following the resignation of Mr De Benedetti, the group's largest shareholder, as chairman. The shares recovered slightly yesterday, but doubts over the financial position of the group, and a judicial investigation into the half-

year figures, still overshadowed Mr Calo's attempt to open a new phase in the group's development.

Supporters of Mr De Benedetti said yesterday that Mediobanca, the powerful Milan merchant bank, which owns a stake in Olivetti, had backed Mr De Benedetti in his effort to reshuffle the management - the third change in as many months.

But several of Olivetti's institutional shareholders warned that they were likely to call for an extraordinary general meeting if any reshuffle of the board failed to meet their expectations.

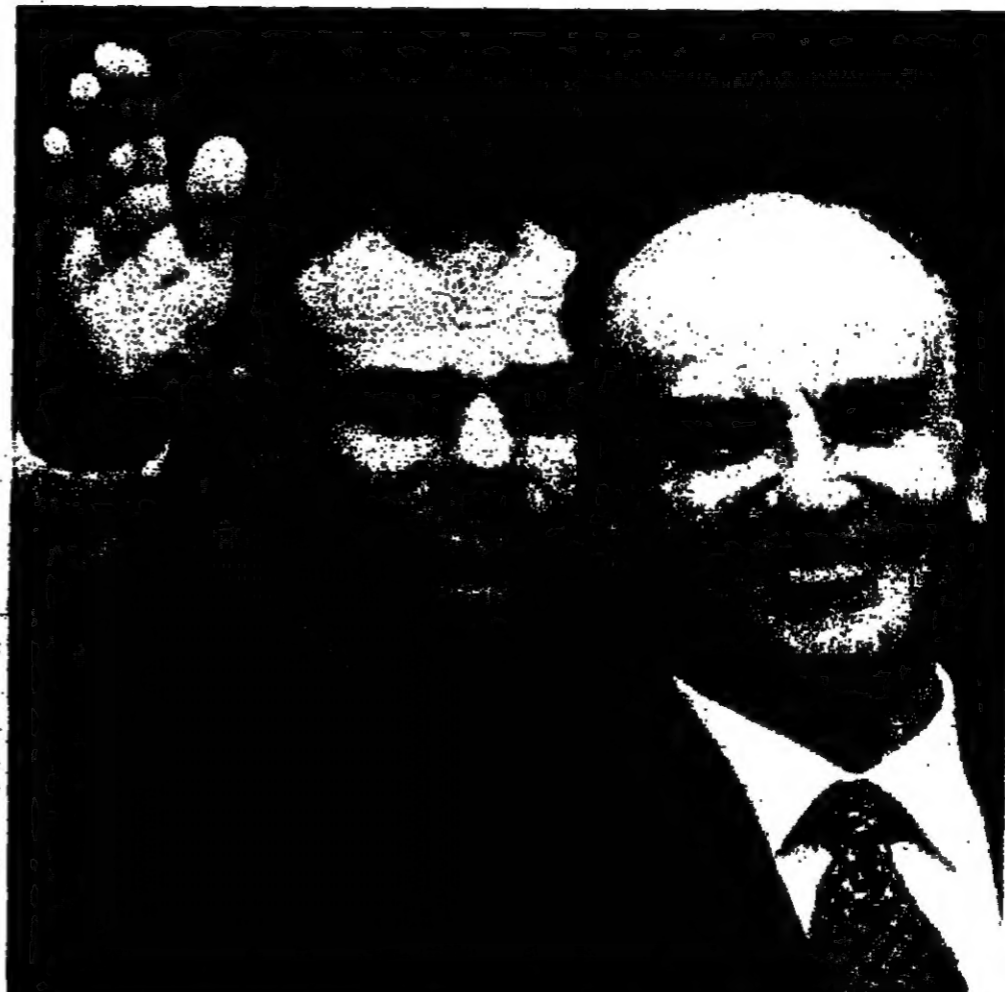
In particular, they said they were keen to ensure that Mr De Benedetti was not reappointed as chairman and wanted the company immediately to sell or close down its personal computer subsidiary - a source of persistent losses and restructuring costs. Investors holding approximately 25 per cent of Olivetti have formed a group which has met twice to discuss possible action.



Speaking ahead of last night's board meeting Mr Tala Shakerchi, head of European equities at Old Mutual, which holds about 2 per cent of Olivetti and is a member of the shareholder group, said that "if we are disappointed then there is a very high likelihood".

Continued on Page 14
Lex, Page 14; Olivetti's promise, Page 16; World stocks, Page 34

Izetbegovic wins Bosnian election



Alija Izetbegovic waves yesterday to supporters of the Muslim Party of Democratic Action after being elected Bosnia's head of state. Mr Izetbegovic, who has been president of Bosnia since the first free elections in 1990, narrowly won the race for the chairmanship of Bosnia's tripartite presidency - one Muslim, one Serb and one Croat. Report, Page 14
Picture: Reuters

France tailors budget to meet Maastricht targets

By David Buchanan in Paris

The French government announced a draft 1997 budget yesterday which would cut the central state deficit by only FF4.6bn (\$780m), because spending cuts will be almost totally absorbed by tax reductions.

But the government said that next year's overall public deficit would be 3 per cent of national output, exactly the figure needed for France to gain its passport to European monetary union.

The government is largely counting on a one-off payment of FF27.5bn from France Telecom, in return for the state assuming the utility's pension liabilities, to achieve the Maastricht deficit target of 3 per cent.

In the 1997 budget, Mr Alain Juppé, prime minister, sought to placate his own centre-right

majority with tax cuts before the 1998 parliamentary elections. He also sought to reassure the financial markets and France's European Union partners that it would meet next year's qualifying test to join the currency union in 1998.

After the budget, the franc fell back slightly, losing one centime to close in Paris at FF2.407 against the D-Mark.

The new budget will bring the deficit down from an estimated FF288bn this year to FF268.7bn next year, or 3.45 per cent of gross domestic product. By pruning FF80bn from this year's spending projections, the government intends to hold the line on expenditure.

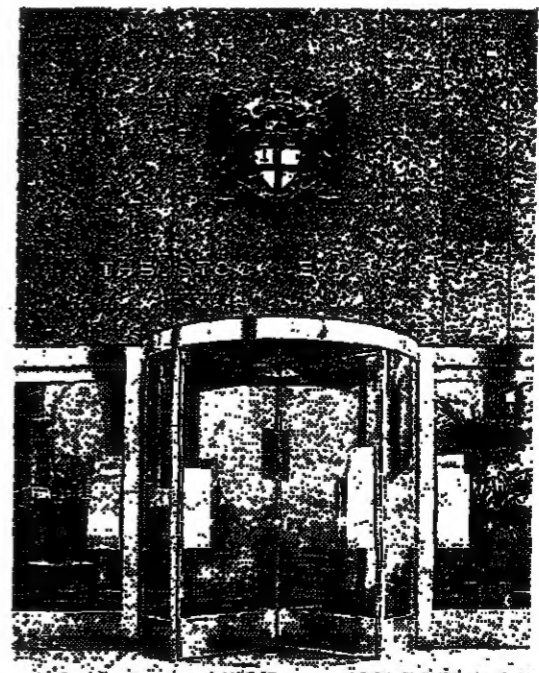
Taking a predicted 1.5 per cent rate of inflation next year, this will entail a cut in real terms. But the government has also pledged to slice FF25bn off general income tax in 1997.

as the start of a five year tax-cutting programme, coupled with a last minute decision to pay early FF15bn in savings premiums to poorer families outside the income tax net.

The government is confident that the France Telecom payment, and certain other non-budgetary funds, can be included in deficit calculations under the Maastricht definition. It has gained preliminary approval from the European Commission, which is responsible for making final proposals on which countries qualify for EMU.

But the fact that the government is resorting to such items to reach the 3 per cent target, 16 months before the end of the 1997 budget year, may leave it little in reserve.

France held its breath, Page 3
Editorial Comment, Page 13
Lex, Page 14



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France held its breath – for FFr4bn

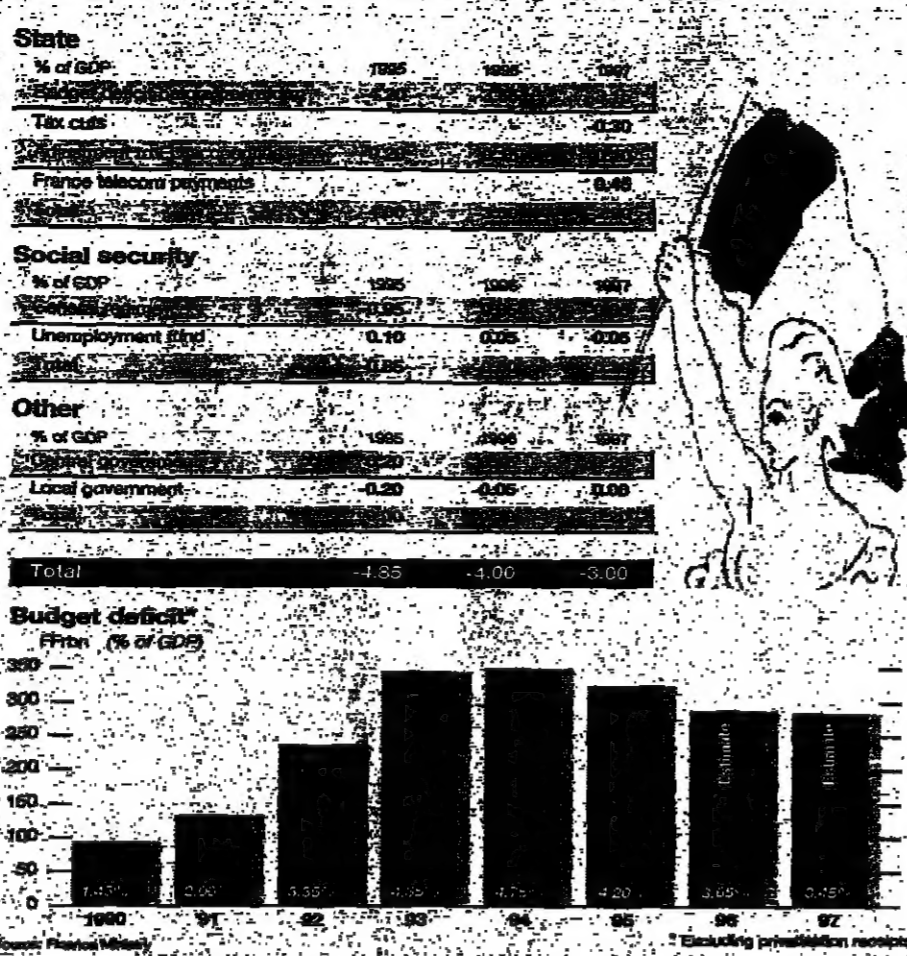
After one of the longest and most dramatised preparations for any budget, the French government yesterday produced a fiscal blueprint for 1997 that reduces the central state budget deficit by a mere FFr4bn (\$787m).

A belated decision to start cutting taxes next year, in an attempt to revive the economy and woo voters for the 1998 parliamentary polls, forced the government to drop its earlier goal of reducing the deficit to FFr245bn. Instead, next year's budgetary shortfall is expected to be FFr283.7bn, compared with its target of FFr288bn this year.

Yet, Mr Jean Arthuis, the finance minister, stressed that he was still confident that the overall deficit, on the combined accounts of central and local government and the social security system would still be no more than 3 per cent of gross domestic product next year, sufficient to qualify the country for economic and monetary union in 1999. The definition of a deficit, under the Maastricht treaty, appears to allow France to count in a big one-off payment from France Télécom and certain other funds.

Mr Alain Juppé, the prime minister, had started as early as May to prepare France's political, business and union leaders for the first real cut in public spending in the Fifth Republic's 38-year history, such was, and still is, the government's

France's overall public deficit



determination to be a founder member of Emu, a largely French-inspired project.

However, the economy began to flag, with growth falling by 0.4 per cent in the second quarter, unemployment

rose again to near-record levels, and successive small drops in consumer prices in June, July and

August prompted talk of deflation. The prime minister found himself under growing pressure from his backbenchers and indeed President Jacques Chirac to bring forward long-promised tax cuts. Earlier this month he announced a first FFr25bn slice off general income tax rates in 1997. Once that decision was taken last month, the FFr245bn deficit target became unachievable.

But the government has at least kept its promise to hold spending next year at last year's level of FFr1,559bn. Given inflation estimated at 1.5 per cent next year, this means a cut in real terms. To offset increases in debt servicing and civil service pay – which Mr Juppé will relax next year after this year's public wage freeze – the government had to find savings of FFr60bn from what ministries, under existing policies, would have otherwise spent in 1997.

It still plans to increase job-creation subsidies next year, but by FFr15bn less than it had planned to do. As with employment policies, it is also making housing subsidies more selective. Anxious to avoid trouble with the teachers, the government is to spend 2 per cent more on education, but is to cut by around 4 per cent money for the interior and foreign ministries.

The 1997 draft budget is based on an assumption that the economy, predicted to grow by 1.3 per cent this

year, will expand by 2.3 per cent next year. Mr Arthuis called this forecast "prudent and realistic".

But the tax cut stimulus will not be great. In addition to the FFr25bn which the government is to leave in income taxpayers' pockets next year, there will be a carryover in 1997 from some consumption-boosting measures decided by the government after last December's disastrous public sector strikes. But offsetting this will be new social security charges, tobacco and alcohol taxes next year totalling FFr13bn. Proceeds from the latter two "health" taxes are to be funnelled into the social security system to help bring its deficit down from FFr50bn this year to FFr20bn next year.

The 1997 budget measures are likely to come under fire from the public sector unions, upset by the government's decision to cut the 22m strong civil service by 6,000 next year, and from within Mr Juppé's own centre-right parliamentary majority, some of whom would have liked deeper tax cuts in the run-up to the 1998 elections.

But as Mr Arthuis said almost pleadingly yesterday, "if anyone thinks we could have done more to cut taxes next year, I would like to hear where we could possibly have cut spending more" to allow for bigger tax cuts.

David Buchan

Call to convert into euros in 1999

Pressure on Bonn over DM bonds

By Gillian Tett and Richard Lapper in London

Pressure is mounting on the German government to announce it will convert D-Mark government bonds into euros as soon as European monetary union starts in 1999.

Such a move, which follows similar action by France, could further boost the credibility of Emu and also help prevent Paris gaining a competitive edge over Frankfurt in the battle for the continent's capital markets business.

The proposal has generated deep unease in the German finance ministry, which will take the decision. It fears the move could prove unpopular among German investors.

German banks and market traders have been pressing the government to "re-denominate" D-Mark bonds into euros for the past few months; it is understood Bundesbank officials will advise the German finance ministry to take the step after widely discussing the issue in recent weeks.

The Bundesbank has refused to comment on the issue but has privately indicated it supports some early conversion.

Mr Ernst Welteke, a member of the Bundesbank council, said last week: "So that we do not have split markets, I urge speedy switch-over of bonds into the new euro currency."

Yesterday, a spokesman for the Deutsche Börse, Germany's stock exchange, said he was confident a decision to re-denominate existing D-Mark denominated debt in 1999 would be taken by the end of this year.

The issue has become significant for the financial markets recently, because of a split between the stance taken by the French

and German governments. Last year, European governments announced all new public-sector debt would be issued in the single currency, the euro, after 1999. But they did not indicate what would happen to the stock of outstanding government bonds in currencies such as the D-Mark which expire after 1999.

The French government has announced it will convert all its outstanding public debt in francs to euros in 1999. This will create a pool of liquidity in euros, which should help Paris in its efforts to become a centre for trading in euro-denominated money market and debt instruments, as well as bond futures contracts.

French bankers also recently persuaded the European Commission to stipulate in its legal proposals for Emu that governments could have powers to convert the markets.

But so far, the German government has refused to follow the French lead in calling for early re-denomination.

Some German officials fear euro debts would be more expensive to service than D-Mark debt. There is also concern that German investors would shun euro debts, particularly since the conversion from D-marks to euros is likely to result in ugly numbers.

One economist involved in the discussions said: "I cannot see the German government rushing into this, it is a very delicate matter." But some big German banks, such as Deutsche Bank, are now pressing for the early conversion of the most liquid part of the German government debt.

Traders fear that if Paris creates a pool of liquidity in euros before Frankfurt, it could give French markets a competitive edge.

The magic of Maastrichtian mathematics...

By David Buchan in Paris

The French government has fully exploited the magic of Maastrichtian mathematics to convert a projected 1997 state budget deficit of 3.45 per cent of GDP into an overall public deficit of 3 per cent, the exact figure required to qualify to join the EU's economic and monetary union. France so far meets all other Maastricht criteria on debt, inflation, interest and exchange rates.

Some unkind spirits might

conclude that the 1997 budget had been concocted in Versailles' Hall of Mirrors rather than the finance ministry's dour fortress at Bercy. However, Mr Jean Arthuis and his team have taken full advantage of the fact that the EU definition of a deficit goes wider than the gap between current spending and revenue. This holds a country's overall public deficit to be the total amount it needs to borrow to cover the gap between the change in its total liabilities and the

change in its total assets. France realised last year it could no longer use privatisation receipts to cut its Maastricht deficit, because these sales reduced its state assets by the same amount and left its net worth unchanged. By the same token, however, recapitalisation of state companies does not raise the Maastricht deficit because it, notionally at least, increases state assets by the same amount.

This latter asset "gain" is traditionally ignored in

French budgets. But if it is included under the Maastricht arithmetic, it lowers the French deficit – by FFr13bn (\$2.53bn), for instance, in 1995.

Next year's big windfall, however, comes in the form of the special FFr37.5bn payment by France Télécom to the government to cover future pensions liability for its employees – part of a deal with the unions on the company's partial privatisation. This imposes a new liability on the state, but one

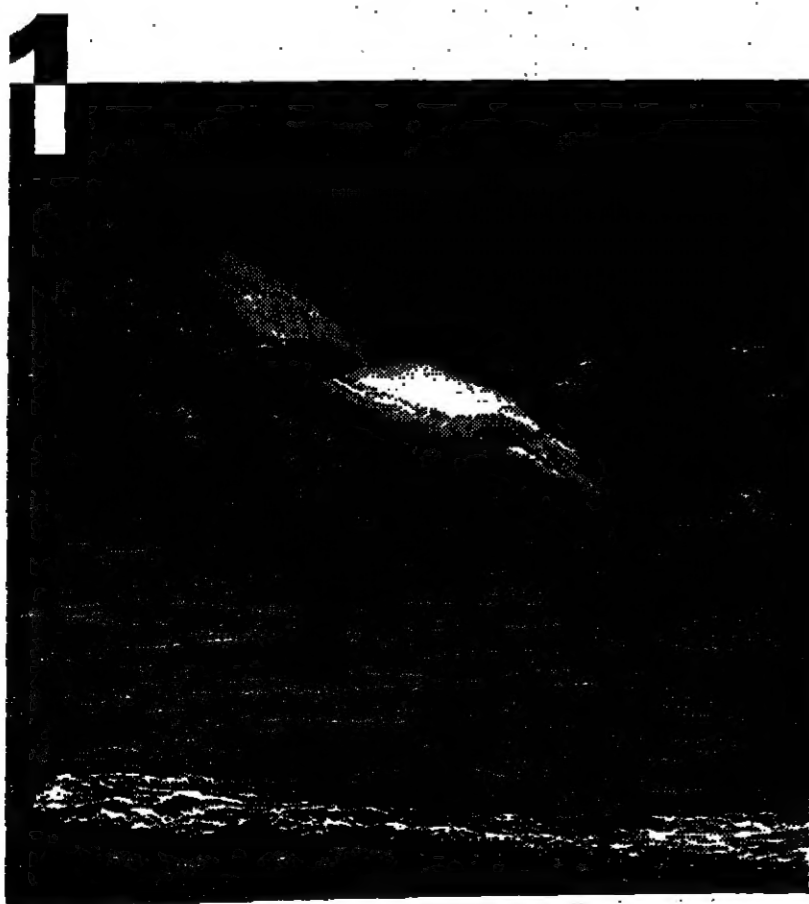
that is difficult to calculate and is not, according to Bercy, calculated in the national accounts of any EU state running similar pay-as-you-go pension schemes.

Paris consulted Brussels on the France Télécom payment and the European Commission said this week that "at first sight" it sees no problem.

Two other non-budgetary factors have also helped. As in 1995 and this year, the government is again adjusting downwards its debt ser-

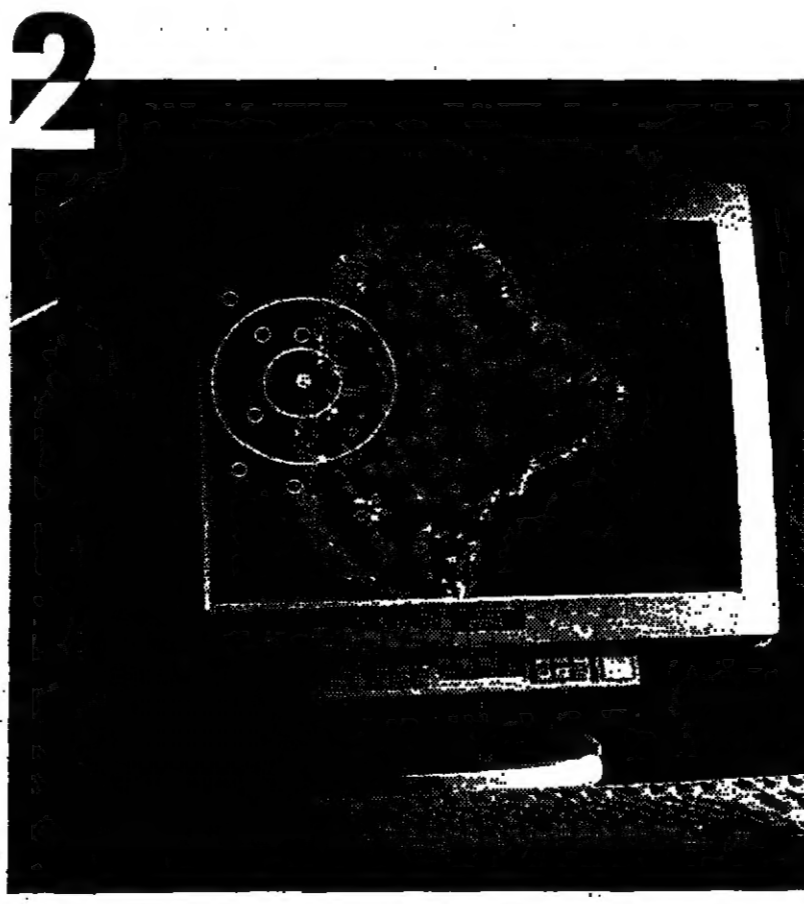
ving, which appeared to be larger than it really was because buyers of bonds in mid-year appeared to be getting a full year's interest when in fact they had paid a higher initial price for their bonds. This year has also seen the special new RDS tax to repay past social security debt. For the moment, this tax is bringing in more – FFr6bn this year and FFr12bn next year – than is being used to repay the debt, and therefore it appears to count as a surplus.

SIEMENS NIXDORF



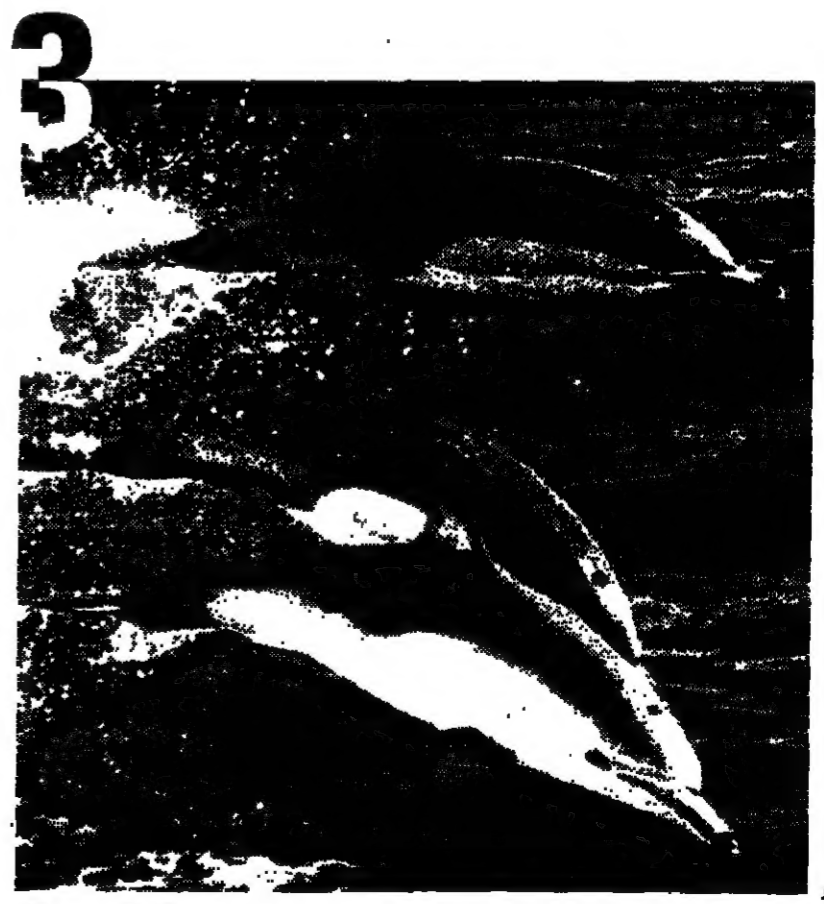
Identify the Threat

Gone are the days when there was a contradiction between ecology and economy: environmental protection is both a competitive factor and a challenge. The need to preserve our ecosystem is something that concerns everyone and that ranges from everyday aspects to global problems, like pollution of the oceans. With leading-edge information systems, it's possible to identify dangers and weakpoints faster – in both the industrial and public sectors.



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Avoid the Threat

Information technology can identify weakpoints and simulate improvements – but the responsibility for doing something about it rests with producers and consumers. The opportunity we have is to control processes through effective environmental management to keep the environment in balance, without impacting corporate profitability. The more private- and public-sector organizations utilize networked environmental protection solutions, the better job we can do of securing our natural ecosystem for everyone.

Siemens Nixdorf: User Centered Computing

Peronist leaders try to salvage austerity bill

By David Pilling in Buenos Aires

Leaders of Argentina's governing Peronist party were yesterday desperately trying to ensure parliamentary passage of a tough austerity bill after last week's fiasco when not enough of their own deputies turned up to reach a quorum.

Approval of the bill, on which debate was expected to continue into the early hours of this morning, is seen as a crucial test of

President Carlos Menem's ability to rally his increasingly fractious Peronist party.

Peronist leaders have spent the past days twisting the arms of those deputies who, mindful of next year's mid-term elections, have refused to back an austerity package that aims to raise an additional \$3bn annually in taxes. The original 21-point plan, which set its sights on extra revenue of \$4bn-\$4.5bn, has been savaged by politicians and interest groups,

reducing the package to its bare bones.

President Menem, in an article published in yesterday's *Clarín*, said he would not hesitate to rule by decree should parliament prove unmanageable. Ironically, it was the opposition Frepaso party which was yesterday hinting that it might attend the debate, thereby providing quorum. All Frepaso deputies were, however, expected to vote against the package.

Eventual passage of the austerity bill is fundamental to the new targets agreed with the International Monetary Fund, with which Argentina this week finalised a revised deal.

According to the letter of intent, which must still be ratified by the IMF's board, the \$3bn from the austerity package will help Argentina reduce its budget deficit next year to \$3bn, or 1 per cent of gross domestic product. If the extra costs involved in cutting the state

bureaucracy and transferring provincial pension schemes to state level are counted, the deficit is allowed to reach \$4.5bn.

The letter of intent also includes the granting of a waiver for Argentina's missed fiscal targets in the first half of this year, which the IMF blamed on sluggish receipts of value-added tax and growing deficits in the social security system.

The Fund has agreed to accept a budget deficit for 1996 of \$5bn

after privatisation receipts, or \$6bn discounting such revenue. The original target had been a balanced budget, with an ambitious \$2.5bn coming from privatisations.

Among positive factors highlighted by the Fund, such as healthy reserve and bank-deposit levels, is the improving situation of provincial finances. The overall provincial deficit of \$3bn last year is expected to be reduced to \$1.1bn this year, and to reach a \$300m surplus in 1997.

Canadian car union makes headway

A new labour agreement between Chrysler's Canadian subsidiary and the Canadian Auto Workers union appears to have strengthened the union's hand for forthcoming contract talks with General Motors, writes Bernard Simon in Toronto.

The CAW claimed the deal, reached shortly before a strike deadline on Tuesday night, was an important victory on the contentious issue of contracting work to outside, usually non-unionised, parts suppliers.

Chrysler agreed to replace any jobs lost to "out-sourcing" at its Canadian plants, provided it was making a profit. Out-sourcing is expected to be the thorniest issue in the negotiations.

The first contract with the Big Three North American motor manufacturers traditionally sets a pattern for talks with the other two. However, GM Canada has made less progress than Chrysler in sourcing components from outside suppliers, and is expected to take a tougher line with the union.

GM has given notice that it plans to sell two parts plants employing a total of 5,000 workers, or almost a fifth of its workforce in Canada. Its operations in the US and Canada are closely integrated. The three-year Chrysler deal provides for an annual wage increase of 2 per cent and improved health-care and vacation benefits.

Insider trading ruling leaves hole, says SEC

By Tracy Corrigan in New York

The US Securities and Exchange Commission has asked a federal appeals court to reconsider a ruling which threatens to narrow the definition of insider trading in the US courts.

The ruling rejected the use of "misappropriation theory", a tool which enables courts to convict people who deceptively use information in violation of trust and confidence, rather than just in breach of strictly defined fiduciary duty. This means, potentially, that an executive dealing on insider information would be guilty of insider trading, but a family member using information obtained from that executive would not.

"This decision leaves a real hole in the ability of the regulators to enforce insider trading rules," said Mr James Morphy, head of mergers and acquisitions at Sullivan & Cromwell, a leading New York law firm. "Eventually the Supreme Court or Congress will have to fill this hole."

The ruling was made in August by the Eighth US Circuit Court, which covers several midwestern states. Since few cases are brought in this area the ruling is unlikely to have an immediate impact on SEC prosecu-

tions, but other circuits could follow this lead.

In the US, insider trading is covered by broad anti-fraud rules; coupled with the "misappropriation" concept, this has so far proved a satisfactory way of prosecuting insider traders, according to Mr Richard Walker, SEC general counsel. But "if other courts followed, we might approach Congress" for legislation defining insider trading more specifically, he said.

The ruling was made in connection with a criminal case against Mr James O'Hagan, a Minneapolis lawyer accused of improper trading in Pillsbury stock options ahead of the acquisition of the US company by the UK's Grand Metropolitan in 1988.

If the court does not reverse its ruling, it could in theory encourage insider traders to deal within the Eighth Circuit Court's jurisdiction. But in practice, the SEC has considerable leeway in deciding where to bring prosecutions; and an insider would have to gain information on a local company and deal through a local broker on a local exchange to have any chance of taking advantage of the ruling. The more important Second, Seventh and Ninth Circuit Courts have all accepted misappropriation theory.

OBITUARY: SPIRO AGNEW

The vice president who fell from grace

By Nancy Dunne in Washington

Mr Spiro Agnew, the US vice president who resigned in disgrace in 1973, died on Tuesday without ever achieving the modest political rehabilitation gained by his one-time boss, President Richard Nixon.

Mr Nixon left the White House 10 months later under the cloud of the Watergate scandal. His crimes were essentially political - wiretapping, break-ins and lying about them. He ultimately fashioned an elder statesman role for himself and lived to hear praise of both his foreign and domestic policy achievements.

Mr Agnew took pay-offs from businesses for using influence on their behalf. His hastily arranged departure came with a plea bargain - pleading no contest to one count of income tax evasion.

From there he went into an obscure retirement, denying any wrongdoing and insisting that he had resigned from office to spare the nation the agony of a trial.

It was he who was spared a trial. If it were not for the national trauma of Watergate he may have risked becoming the first vice president to endure prison. Instead, he set up as an international trade consultant, wrote a novel and retired to a luxury community near Palm Springs.

Mr Agnew did not go unmentioned. The mayor of the town of Gargalianoi, from which Mr Agnew's family had emigrated, issued a statement calling him "a good man who made us proud."

Mr Agnew's rise was almost as spectacular as his fall. He was elected Republican governor of Maryland, running against a Demo-

cratic racist and garnering the support of blacks and liberals. Mr Nixon selected him as a running mate in 1968 and made him the campaign "attack dog" so that Mr Nixon could look presidential. He became "Nixon's Nixon" - a reference to his boss's role when he was President Dwight Eisenhower's vice president.

He did little but attack throughout his years in the vice presidency, dismissing White House opponents as "nattering nabobs of negativism" and "an effete corps of impudent snobs."

Mr Agnew's critics ridiculed his blunders and ethnic slurs. Democrats tried to use him to get to Mr Nixon. In one commercial he was shown making a speech, but the sound track consisted of only loud laughter and the tag line: "This would be serious if it weren't so funny."



Agnew: Nixon made him the campaign "attack dog"

Copper market co-operation new, hearing told

By Laurie Morse in Washington

The head of the US commodity trading regulator indicated yesterday that, despite evidence of world copper market abnormalities, international regulatory co-operation did not proceed smoothly until after Sumitomo's losses became public in June.

Miss Brookley Born, the chairperson of the Commodity Futures Trading Commission, the chief futures and derivatives regu-

lator in the US, told a congressional hearing yesterday: "Routine information sharing for supervisory purposes is relatively new to the international community, and the production and review of surveillance information by certain markets is uncommon and in early stages of development."

However, Miss Born said that her agency did not need extra powers to supervise market events such as the Sumitomo losses and the subsequent 25 per cent drop in world

copper prices. In fact US bank exposures to Sumitomo corporation's copper trading activities have so far been minimal and copper trading losses appear to be limited to the Sumitomo trading company itself, according to Federal Reserve governor Susan Phillips, who was testifying at a house banking subcommittee hearing on the effect of the Sumitomo affair on US markets and financial institutions.

However, the banking regulator empha-

sised that the review of Sumitomo's copper transactions, which generated \$1.8bn losses for the company, will continue.

Two US banks believed to have helped finance Sumitomo's copper trading activities, JP Morgan and Chase, declined to testify at the public hearing.

Miss Phillips, who is a former chairperson of the CFTC, also said that additional regulation in the US would not have prevented Sumitomo's trading losses.

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Certain proteins found in the venom of a Brazilian pit viper boost the hypotensive effect of bradykinin.

develop a new life-saving drug. Research into cardiovascular disorders has always played an important role at Hoechst.

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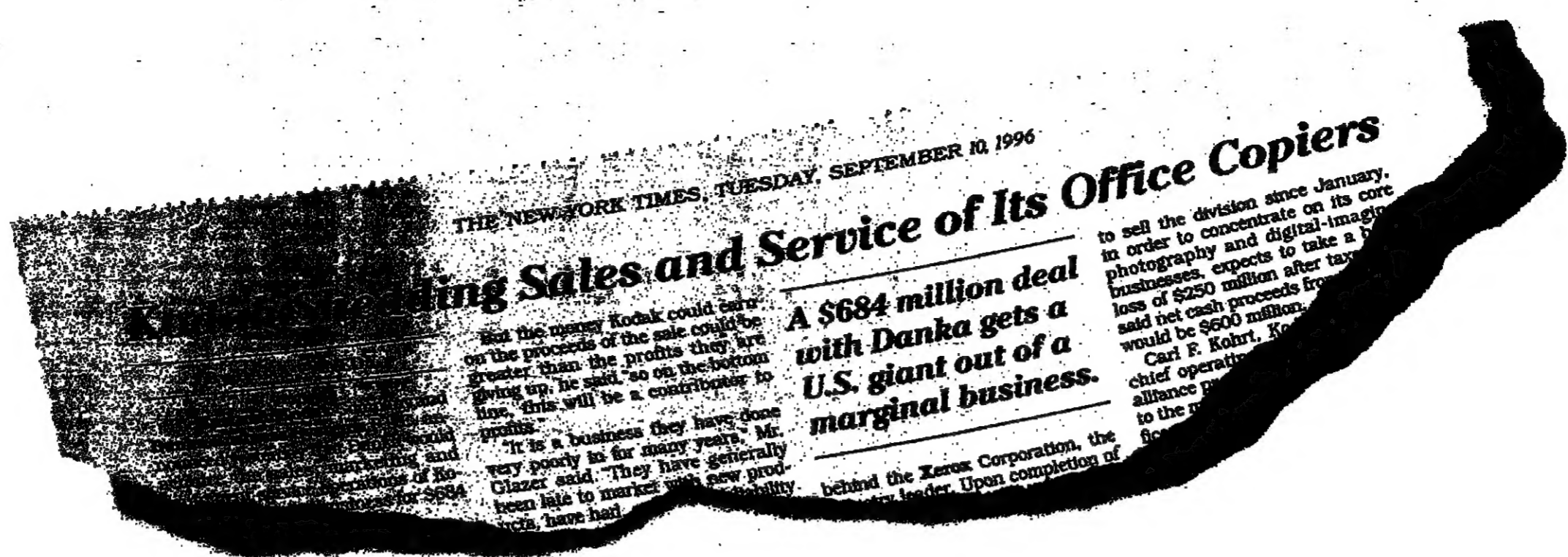
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NEWS: INTERNATIONAL

Frightened Kurds look to US for protection

By John Barham in Arbil, northern Iraq

The talks between US officials and Mr Massoud Barzani, the Kurdish leader allied to Iraq, due to take place in Ankara last night, brought a palpable sense of relief to Iraq's Kurdish north yesterday.

It was only two weeks ago that Mr Barzani and his Kurdistan Democratic Party (KDP) asked for Iraqi President Saddam Hussein's help to recapture the Kurdish city of Arbil from the rival Patriotic Union of Kurdistan (PUK). Following that, and despite US retaliation in southern Iraq, Mr Barzani has won virtual control over the Kurdish north.

Yesterday Mr Barzani arrived in Ankara for talks with Turkish leaders as well as Mr Robert Pelletreau, the US assistant secretary of

state for Near Eastern affairs.

Few, if any, Kurds ever felt secure about Mr Barzani's deal with Mr Saddam. A shopkeeper in Sulaimaniya, the enclave's biggest city, said: "There will be peace in Kurdistan, but the United States will help Barzani, directly or indirectly."

Although fighting has died down and Iraqi government forces have withdrawn from the city, fear of Mr Saddam's Mukhabarat or intelligence services remains widespread.

There are no longer reports of abductions of Iraqi opposition members by the Mukhabarat, but Kurds now feel that walls have ears.

Few dare criticise Mr Barzani openly, but in private show contempt for him, calling him a "traitor" or "corrupt". Such apprehensions among Kurds are a main reason why Mr Barzani is try-

ing to distance himself from Mr Saddam.

Even KDP officials are relieved Washington has so readily reopened communications with Mr Barzani. One party member close to him said: "We ask Mr Pelletreau that protection and international assistance for the Kurds continue. If we have that protection we will not turn to anyone else."

Mr Barzani blamed US indifference to rising tensions with the PUK for driving him into the arms of Mr Saddam. But he has also been claiming that he has no intention of being tied to the Iraqi regime.

Mr Barzani is in a vulnerable position and his move risks provoking Iraqi retaliation. Iraqi media yesterday warned Mr Barzani against meeting with the US.

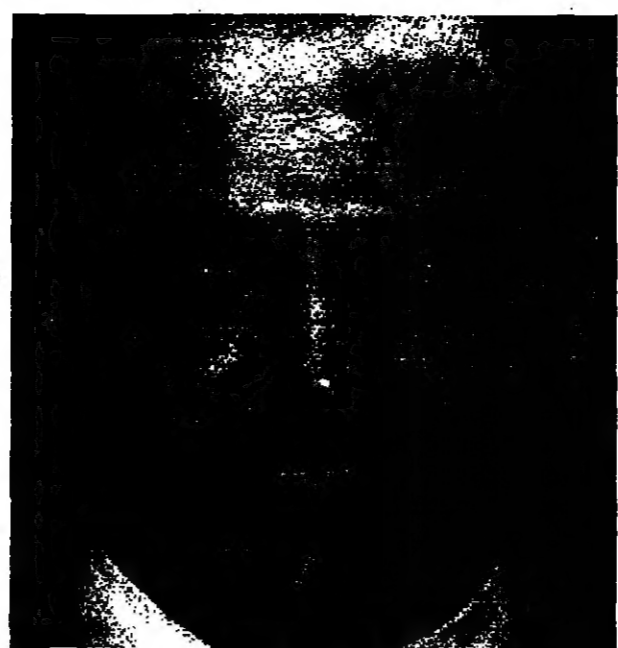
While admitting that Mr Barzani will be unable to cut

his ties with Baghdad, US officials said their meeting with Mr Barzani had the short-term objective of maintaining some US foothold on the ground by securing KDP help to protect people working for US agencies in northern Iraq and keeping the US aid organisations operating.

In the longer term, the aim is to attempt a reconciliation between the two rival Kurdish factions.

As to Mr Barzani, aides said he may also want the US to return its token - but psychologically very important - military presence in northern Iraq and resume aid programmes. Residents' morale collapsed with the sudden departure of the US-led military co-ordination centre from the border town of Zakho and termination of the US government's aid operations.

Mr Saddam has exempted those he considers to be "spying for foreigners" from a general amnesty he decreed for Kurds, leaving local employees of aid agencies terrified that they might face execution. Their fear has paralysed the work of the agencies.



Barzani: few dare criticise him openly

those he considers to be "spying for foreigners" from a general amnesty he decreed for Kurds, leaving local employees of aid agencies terrified that they might face execution. Their fear has paralysed the work of the agencies.

"We think Kurdistan is not safe," said a doctor. "Saddam will take it militarily or slowly, in co-ordination with a Kurdish party." Hollow-eyed with fatigue and fear, he said he would flee the moment the opportunity arose.

Lebanon curb on political broadcasting

By Sean Evers in Cairo

Lebanon yesterday banned broadcasts of political programmes and news by about 80 private television stations and 150 radio stations and ordered them to close by the end of November.

Political broadcasting is now restricted to four TV stations and three radio outlets controlled by the pro-government establishment, a move that risks serious protest by opposition groups.

The opposition and private media operators condemned the move, saying it restricted press freedom and concentrated the media in the hands of powerful political, sectarian and business leaders.

The government granted licences to four television stations - owned by Mr Rafiq al-Hariri, the Sunni Muslim prime minister, Mr Nabih Berri, the Shiite speaker of parliament and Hizbollah rival, the brother of the Greek Orthodox interior minister, Mr Michel Murr, and to LBCI, the former station of the now disbanded Maronite Christian Lebanese Forces militia, in which leading Christian businessmen have invested.

Eleven radio stations were licensed, but only three may air news and political programmes. These are owned by Mr Hariri, Mr Berri, and LBCI.

The clampdown on Lebanon's free-wheeling media follows recent elections to parliament - tightly managed by Syria - which returned an overwhelmingly pro-Syrian majority group around two blocs loyal to Mr Hariri and Mr Berri.

Mr Paul Salem, director of the Lebanese Centre for Policy Studies, said although there was a rational argument for re-organising the audio-visual media industry, clear favouritism had been shown. "The end result is that now four or five politicians in the country monopolise the public and private sector," he said.

Most of the television and radio stations were set up amid the anarchy of the Lebanese civil war of 1975-90 as mouthpieces of the militias. In the aftermath of the war most stations became commercial operations and competed for a slice of the lucrative advertising market.

The broadcast media was the fastest growing economic sector in Lebanon, and the closure of large parts of it will put thousands of highly skilled young professionals out of work.

Mr Salem said: "Syria has successfully consolidated a friendly local power structure in Lebanon, having just won elections, and now they will control the media."

Action urged on water shortages

By Layla Boulton, Environment Correspondent

The number of people living in water-stressed countries in Africa could rise from 300m to 1.1bn by 2025, says a report by a Washington-based think-tank which calls for greater action on the world's water shortages.

The report by the Worldwatch Institute says that areas which face worsening water shortages should make more use of water-saving measures tried elsewhere.

It adds that policy-makers have yet to understand that new engineering projects such as dams will not be enough to solve water shortages, which could threaten countries' security and food supplies.

The report calls for: removing subsidies and charging more realistic prices.

● Californian-style restructuring of tariffs to encourage conservation.

● Water trading, as practised in Chile, where farmers can sell water rights to water companies.

● A change in agricultural practices, including a switch to drip system irrigation which doubled the amount of land that could be irrigated in a Nepalese pilot project.

● Water-sharing agreements between nations.

It said projects could be aided by the involvement of third parties such as the World Bank, swaps of other assets such as energy, or land-crossing rights, joint management of water resources and attaching monetary values to disputed resources.

"Dividing the Waters: Food Security, Ecosystem Health, and the New Politics of Scarcity"

Iran is anxious to contain Gulf conflict

In Tehran's view, Saddam's Iraq is a safer bet than an ungovernable Iraq, writes Kasra Naji

Posters have been put up in the streets of Tehran to mark what has been officially termed Holy Defence Week to commemorate the anniversary of the start of the Iran-Iraq war 15 years ago.

The occasion has provided Iran's leaders with an opportunity to call on the armed forces for extra vigilance at a time when the situation in northern Iraq remains volatile and the US continues with its military build-up in Kuwait and elsewhere in the region.

Officials say Iran is determined not to get sucked into the crisis. To ensure this, Iran has been strengthening its defences along the border with Iraqi Kurdistan. At the same time it has begun a new round of diplomatic

efforts to prevent any escalation.

The immediate concern is the possibility that the fighting between the two main rival Kurdish groups and involving Iraqi troops might spill over into Iran. Already the forces of the Patriotic Union of Kurdistan are using mountain passes on the border to shift troops. And in the past few days there have been at least two clashes between forces of the PUK and the Kurdistan Democratic party near the Iranian border.

There is also the possibility that Iranian opposition forces - the Iranian KDP and the Mujahideen - might use the new chaos in the border areas to attack Iranian villages and towns with the help of Iraqi forces.

Iran is also anxious about a Turkish plan to establish a buffer zone in northern Iraq which Turkey's own Kurdish rebels use as a base. "Iran condemns the plan to establish a buffer zone as it contravenes Iraq's territorial integrity," said a Tehran

foreign minister, held talks with Turkish leaders on Sunday. Mr Mahmoud Vaezi, his deputy, has been dispatched to Moscow to enlist Russian support. And Iran has also been in close con-

Iran imagines it is 'the number one enemy of the number one state' - diplomat

sultation with Syria to strengthen its hand in dealing with Turkey. Iranian officials say that for Turkey to establish a buffer zone would be the first step towards the disintegration of Iraq. But they

admit that there is little that Iran could do if Turkey went ahead with such a plan. Iran prefers a strong central government in Baghdad - albeit in the form of an unpredictable former enemy, President Saddam Hussein - to an Afghanistan-type situation in which several groups claim power and no one is in control.

Meanwhile, Iran has always viewed any US military build-up in the region with suspicion. Iranian officials believe that the so-called "dual containment" strategy of the US in the region to keep Iran and Iraq under pressure is geared more towards Iran than Iraq.

They believe that the US has been preparing itself and international public opinion for an eventual military

strike against Iran.

One diplomat in Tehran said Iran had a misplaced sense of self-importance as it saw itself as "the number one enemy of the number one state". Diplomats say the US knows full well that any military action against Iran could help generate support among its population for their government.

For the moment, while calling on the armed forces to be more vigilant, Iran seems to be no more than a passive observer of events, and that, according to one observer in Tehran, is no bad thing. "At least they are not doing something foolish," he said.

Meanwhile, many ordinary people seem concerned about the effects the crisis might have on food prices.

Mordechai approves new West Bank homes

By Judy Dempsey in Jerusalem

Israel's defence ministry yesterday approved plans to build a further 1,500 homes in a Jewish settlement in the West Bank. The decision could be aimed at strengthening Israel's position in a final settlement with the Palestinians, Israeli officials said.

The decision by Mr Yitzhak Mordechai, the defence minister, confirms the government's intentions to step up the expansion of

existing settlements. However, it is still unclear if the Likud government intends to create new ones.

The former Labour government had allowed the extensive expansion of existing settlements but had halted new ones in a bid to push forward the peace process.

But since the election of the rightwing Likud government last May, Mr Benjamin Netanyahu, the prime minister, appears determined to allow new homes to be built despite

sharp criticism from Israeli peace groups and the Palestinians.

Yesterday, they argued the move would have a negative psychological effect on the peace process which has virtually come to a standstill since Likud came to power.

"Of course we will be criticised about this plan," a government spokesman said. "But there is nothing in the [Israeli-Palestinian] interim agreement and there is nothing written down which states we cannot continue to build new homes within the

existing settlement boundaries."

The defence ministry said it was simply unfreezing plans by the previous government. The latest approval is for Matityahu, an ultra-orthodox settlement of 2,400 people. It is in the West Bank, close to Israel's pre-1967 border.

A government official insisted the homes were necessary, especially for the ultra-orthodox Jews "because of natural reasons. They have large families. They need room." But Likud

is beholden to meeting its pledges on expanding the existing settlements to the three ultra-orthodox parties in the coalition.

He went further by suggesting that both the Israelis and the Palestinians were trying to strengthen their negotiating position in the event of any final agreement even though many of the commitments in the 1995 interim agreement have yet to be fulfilled.

The announcement of the approval took place hours before Mr Mordechai and Mr

Yassir Arafat, the Palestinian Authority president, were due to hold talks in Gaza. They were expected to focus on security issues and the redeployment of Israeli troops from the West Bank town of Hebron.

The redeployment from Hebron is long overdue. But so far Mr Netanyahu has given neither a commitment nor a timetable for their withdrawal, an issue which Mr Dennis Ross, the US special envoy, was due to raise with Mr Arafat in Gaza as well.

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WWF
World Wide Fund For Nature
(formerly World Wildlife Fund)
International Secretariat, 1196 Chaux, Switzerland.

CONTRACTS & TENDERS

PRIVATISATION DIVISION
GOVERNMENT OF PAKISTAN

FINANCIAL ADVISOR FOR MOLTAN, FAISALABAD & MUZAFFARGARH POWER PLANTS

Privatisation Division, Government of Pakistan is pursuing the privatisation of state-owned utilities by selling strategic stake with transfer of management control, to well-qualified and reputed international investors. With regard to the power sector, a strategic plan for restructuring and privatisation of Water & Power Development Authority (WAPDA) is being followed under which selected asset blocks (like generation units, distribution networks) are being corporatized, and 26% stake in the corporatized entities, along with transfer of management control, is being offered to strategic investors.

Privatisation Division is looking for a Financial Advisor in order to embark upon the privatisation of three power generation plants, located in the province of Punjab, namely Moltan Thermal Power Station (260 MW), Faisalabad Steam and Gas Turbine Stations (376 MW) and Muzaffargarh Steam Station (840 MW). These three power facilities feed into WAPDA's national grid. WAPDA, being the owner of the three plants, has already created a separate organization (call WAPDA Private Power Organization - WPPO) to oversee the privatisation process. The plant management have been asked to assemble the data, and make the necessary documents available, so as to facilitate the work of the Financial Advisor.

Applications are invited from reputed investment banks, or consortiums, for providing the Financial Advisory Services, giving the following information:

1. Technical and financial information on the firm/consortium.
2. Description of projects undertaken in the power sector.
3. List of projects on privatisation undertaken by the firm/consortium.
4. Name and curriculum vitae of key staff and their work experience.
5. List of international affiliates with their confirmation letter.
6. Details of full-time presence in Pakistan, with particulars of professionals available.
7. Affidavit that the information/documents submitted are accurate.

Interested Firms/Consortiums would be pre-qualified on the strength of their past experience of similar assignments and the experience of the relevant staff. Terms of Reference (TOR) for submission of proposals would be made available only to the pre-qualified bidders.

Expression of Interest for pre-qualification should reach the following address by close of office hours, latest by Monday, September 30, 1996, at the following address:

Mr. Khalid Ahmad Khan,
Deputy Secretary (Power), Privatisation Division
EAC Building, Constitution Avenue, Islamabad, Pakistan
Ph: (92-51) 9215466 Fax: (92-51) 9203076

Car workers demand 7% pay increase

By Robert Taylor,
Employment Editor

Workers at Rover, the UK vehicle subsidiary of BMW of Germany, yesterday demanded a pay rise of at least 7 per cent. The current average earnings increase in the UK is running at 3.75 per cent.

The size of the pay claim reflects a determination by union negotiators to achieve wage increases that reward past productivity performance. In addition, the Rover workers want a cut in the basic working week from 37 hours to 35 hours to bring them more into line with the time worked by BMW's German staff.

The Transport and General Workers union national officer for the car industry, Mr Tony Woodley, said: "As union negotiators we must stop making apologies for demanding fair recompense for workers in return for real improvements they have made in their productivity. We see 7 per cent as the very minimum of what we need."

The union represents about half the workforce. Demanding pay rises in line with inflation is no longer enough, particularly when corporate fat cats are enjoying earnings increases that average 12 per cent.

Mr Woodley said the unions believed Rover had secured impressive productivity improvements since 1992, although he acknowledged there had been a more modest achievement in recent months.

UK NEWS DIGEST

Army displays tank fire-power

The British Army yesterday demonstrated its latest generation of main battle tanks to its European counterparts as part of international arms control agreements. A group of 35 officers from 20 nations watched the 85-ton Challenger II tank, made by Vickers Defence Systems, destroy six tank targets in 26 seconds at ranges of up to 1,500 metres in a deafening display of fire-power.

Airport operator plans increased travel links

By Charles Batchelor,
Transport Correspondent

BAA, the operator of London's Heathrow Airport, yesterday unveiled plans for links to the national rail network once a new London Underground rail terminal opens in 1998.

The company has begun talks with five train-operating companies with the aim of creating rail links to a wide range of destinations in London, to Gatwick Airport and the south coast and north to Birmingham and Manchester.

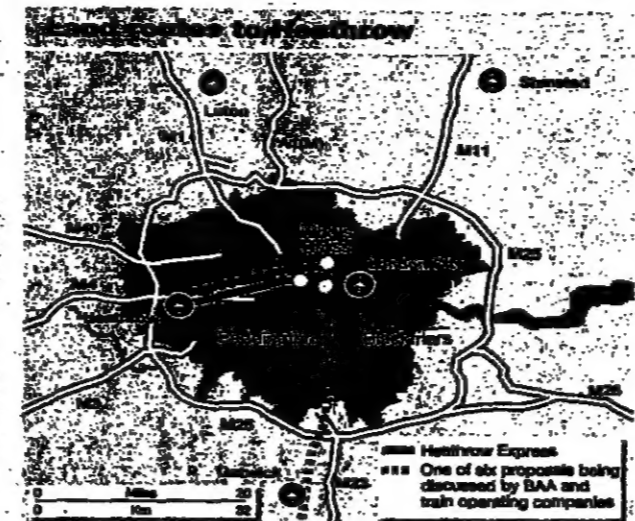
These proposals form part of a programme intended to encourage airline passengers to travel to the airport by public transport rather than by car. BAA wants to increase the public transport's share from 34 per cent to 50 per cent. This will form part of BAA's submission to

the public inquiry now under way into plans for a fifth terminal at Heathrow.

Technical director, Mr Michael Maise, said: "We are doing more than anyone could have hoped for, or expected, to encourage public transport. This will not only benefit travellers to the airport but also London and the south-east generally."

BAA also hopes to create a bus and coach lane on the M4 motorway approach to the airport - the first time that such a lane has been established on a British motorway - and is in talks with the Highways Agency.

BAA has already announced plans to spend £500m (£780m) on rail improvements at the airport including £350m on the Heathrow Express link which will provide a 16-minute journey time to London Paddington station from



June 1998. A further £70m will be spent on extending the Piccadilly Underground line to terminal five. If it is built, while £50m would go to a main line and station at terminal five.

BBC to enter Internet market

By Alan Cane and Raymond Snoddy in London

The BBC plans to launch a service on the Internet which could promote greater acceptance of the global computer network in the same way that the BBC Computer popularised computing in the 1980s.

Contracts have been signed between BBC Worldwide, the public broadcaster's commercial arm, and the multimedia division of ICL, the UK computer group owned by Fujitsu of Japan, to design and run the service.

BBC Worldwide will announce the service within the next two weeks. It will feature news, weather and travel information as well as educational and entertainment material. It is expected to go live in the early part of 1997.

The BBC confirmed last night it was in discussions with ICL and other companies and would make an announcement shortly. It is understood that ICL has won the contract in competition with Microsoft of the US, the world's largest software company, which has launched an Internet television service in a joint venture with NBC.

The deal with ICL is part of a much broader BBC strategy to exploit its programme library and expertise in a wide variety of digital forms - ranging from online to digital satellite and digital terrestrial broadcasting. The corporation is also in talks with Flextech, the television channel provider controlled by Telecommunications Inc of Denver.

If the deal is agreed the two companies will launch at least six satellite television channels together. ICL will not be paid a fee for its services but will take a percentage of the subscription paid for the service.

The BBC is providing programming and content while ICL has designed the system and is taking responsibility for the technical specification.

The main selling points will be the speed - compared with the frequent delays experienced by users - and ease of use. There will also be a "morality button" to reassure parents who might fear their children could use the service to view pornography and other unsuitable material available on the Internet.

ICL declined to comment last night.

Airline sheds 5,000 jobs to save \$1.5bn

By Michael Skapinker,
Aerospace Correspondent

British Airways is to offer voluntary redundancy to 5,000 employees - and will hire the same number of recruits - as part of plans to save \$1.5bn (£1.5bn) over three years.

Mr Robert Ayling, BA's chief executive, said yesterday that several areas of the company, including baggage handling and ticket processing, had been told they would have to cut costs to the level achieved by outside

suppliers. Failure to do so would mean their work being put out to contract. But the company did not announce any immediate plans to contract out work.

Mr Ayling told staff the cost-cutting plan was essential if BA was to maintain its lead in the international airline industry.

He said: "Today marks the start of the next stage in our long journey from privatisation. In 10 years we have transformed ourselves into an airline which has few equals. To be a success in

the next century, we have to bear in mind the transformation we achieved in the past, and then do it all over again."

Mr Ayling said the redundancy programme would start in November and last for 18 months. Voluntary severance or early retirement would be offered only to UK employees who account for 46,000 of the airline's 55,300 staff. He said BA hoped to avoid compulsory redundancies, although these could not be ruled out.

The recruits will be taken on over the next three years, so that by the end of the decade the airline will have around the same number of employees as it has today.

Mr Ayling said the new staff would have the skills BA needed to succeed in the future, including languages.

Mr Ayling said BA planned to reduce advertising and promotional expenditure. It would also improve flight punctuality and share more of its aircraft with Qantas of Australia, in which it has a minority stake, and American Air-

lines. BA and American are awaiting US and UK government approval for their alliance, announced in June.

Mr Ayling said BA planned to develop interactive on-board entertainment allowing passengers to order goods, gamble or watch "pay-per-view" films and television programmes.

BA is considering inviting investors to take a minority stake in its engineering and maintenance system.

Smooth take-off, Page 18
Lex, Page 14

Recovery is 'most balanced in Europe'

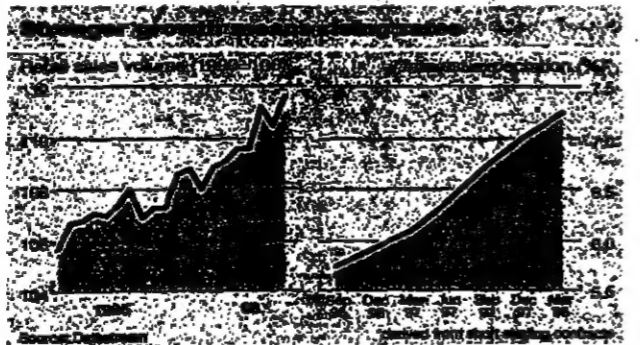
By Graham Bowley,
Economics Staff

The present economic recovery represented "the most balanced and sustainable economic growth of any major European economy", the UK Treasury said yesterday.

Figures from the Office for National Statistics showed that sales in city shopping streets were growing at their fastest rate since 1988, making it increasingly unlikely that Mr Kenneth Clarke, the chancellor of the exchequer, would be able to cut interest rates again without alarming the financial markets.

The ONS said retail sales rose a seasonally adjusted 1 per cent last month and were 4.4 per cent higher than in August last year.

The acceleration in retail activity reawakened memo-



ries of the late 1980s consumer boom and provoked a strong reaction in financial markets as investors feared current growth rates were unsustainable and would lead to rising inflation.

UK government bond and share prices fell back on fears of rising interest rates, while the pound rose against the dollar.

The financial futures markets concluded that interest rates were likely to be higher by Christmas.

The figures, which were much stronger than City economists expected, coincided with the news that Mr Eddie George, governor of the Bank of England (the UK central bank), pushed strongly for rates to rise to

6 per cent from the present 5.75 per cent at his monthly monetary meeting with Mr Clarke in July.

The minutes of the meeting, published yesterday, showed that Mr George expressed concern that economic growth, especially consumer spending, was stoking inflationary pressures.

However, Mr Clarke said he was prepared to raise rates early if inflationary pressures picked up, but he "saw no evidence yet of those pressures".

In the three months to August, retail sales volumes were 1.6 per cent higher than in the previous three months, the strongest growth since August 1988.

Sales of clothing, footwear and household goods appear to be driving most of the increase. Sales of textiles,

clothing and footwear rose 5.6 per cent in the latest three months compared with the previous three months, the strongest growth for a decade.

Household goods, especially electrical goods such as televisions, are benefiting from the present recovery in the housing market. Clothing sales have been boosted by new autumn fashions and heavy discounting as prices have fallen below last year's levels.

Overall, sales by non-food stores rose 2 per cent between July and August. Sales by food stores were flat.

There were widespread declines in retailers' share prices, suggesting investors believe the high rates of growth are unsustainable.

Major's morals, Page 18

Ostrich farm funds take flight

Nearly a third of the birds sold to investors 'never existed'

Nearly a third of the 3,700 ostriches sold to investors by Ostrich Farming Corporation did not exist, and at least 400 of the others have died, according to the company's joint liquidator.

Mr Adrian Stanway, of accountants Coopers & Lybrand, also said that of nearly £22m (£34.33m) raised by OFC from 2,700 investors, no more than £5m could be explained by the purchase and upkeep of birds.

The collapse of OFC, closed down in April on public interest grounds by the Department of Trade and Industry, has left the liquidators with two linked problems - how to care for nearly 2,500 ostriches on Belgian farms and how to maximise the return to creditors, including the owners of individual birds.

The owners paid up to £17,700 for birds whose market value is now estimated to be £400 at most. Having invested on the promise of annual returns exceeding 50 per cent, they now realise that the hope of retrieving any of their outlay will require more money.

General Sir Robert Pascoe, of the Ostrich Owners Protection Group, said: "I know of a secretary who borrowed money from her boss to invest. I know of someone who mortgaged his house."

OFC sold 3,700 ostriches to investors, but only 1,876 adult birds and 620 chicks had been identified in the records held by Mr Eddy Nachtergaele, the Belgian farmer who reared them, Mr Stanway said.

The "ostriches" OFC allocated to other investors were only the numbers of micro-chips which had not yet been implanted into specific birds' necks for identification purposes.

The actual number of live birds will not be known until they are counted in November, after the breeding season ends. At least 400 have died, however, after a mix-up over feed. Mr Nachtergaele has agreed to replace these and any others who have died, under an agreement reached after Mr Stanway's appointment in July.

The parallel effort to trace and recover the missing money is being conducted by Coopers' forensic account-

ants. In the High Court in London, the liquidators have already won court orders freezing the worldwide assets of two companies and four men: US-based Wallstreet LLC and Wallstreet Corporation (UK) - which, they claim, received "excessive payments" by acting as intermediaries in the ostrich sales; three OFC directors, Mr Jack Bennett, Mr Brian Ketchell and Mr Allan Walker; and a fourth man, Mr Kevin Jones, who allegedly received "large sums" through Wallstreet LLC.

The court orders, however, deal with only £5.5m of the estimated £17m which cannot be accounted for by payments to Mr Nachtergaele's Belgian companies which supplied the ostriches and agreed to take care of them for investors.

Coopers has identified other transactions it considers suspicious, but is weighing potential benefit against the chance of success.

As for the ostriches themselves, Mr Stanway's team were able to break a legal impasse which had developed between Mr Nachtergaele and the Official Receiver, who had stopped payments to the OFC farmer for the Ostrich Owners' livery - food, accommodation and care.

In return for the liquidators' paying Mr Nachtergaele £200,000 in arrears, he agreed to withdraw legal actions for non-payment in the Belgian courts. The money will be recouped from owners, even those whose contracts with OFC included livery.

Mr Stanway has given owners three choices:

- To leave their ostriches with Mr Nachtergaele, paying a livery charge of £537 per bird until the end of 1996, (including a £200 contingency charge);
- To remove their ostriches, at an estimated cost of £800.
- To sell or abandon their birds.

So far, most are retaining hope. Some 1,700 have signalled their intention to support the Ostrich Owners Protection Group, whose intention is to form a mutual company to own the birds and keep them on Mr Nachtergaele's farm.

Clay Harris

CONTRACTS & TENDERS

ANNOUNCEMENT FOR PRE-QUALIFICATION FROM KESKIL IRON & STEEL WORKS, INC., TURKEY			
A) TURBINE-GENERATOR/MOTOR-BLOWER			
B) MOTOR-BLOWER			
C) TURBINE-GENERATOR/MOTOR-BLOWER			
D) MOTOR-BLOWER			
E) TURBINE-GENERATOR/MOTOR-BLOWER			
F) MOTOR-BLOWER			
G) TURBINE-GENERATOR/MOTOR-BLOWER			
H) MOTOR-BLOWER			
I) TURBINE-GENERATOR/MOTOR-BLOWER			
J) MOTOR-BLOWER			
K) TURBINE-GENERATOR/MOTOR-BLOWER			
L) MOTOR-BLOWER			
M) TURBINE-GENERATOR/MOTOR-BLOWER			
N) MOTOR-BLOWER			
O) TURBINE-GENERATOR/MOTOR-BLOWER			
P) MOTOR-BLOWER			
Q) TURBINE-GENERATOR/MOTOR-BLOWER			
R) MOTOR-BLOWER			
S) TURBINE-GENERATOR/MOTOR-BLOWER			
T) MOTOR-BLOWER			
U) TURBINE-GENERATOR/MOTOR-BLOWER			
V) MOTOR-BLOWER			
W) TURBINE-GENERATOR/MOTOR-BLOWER			
X) MOTOR-BLOWER			
Y) TURBINE-GENERATOR/MOTOR-BLOWER			
Z) MOTOR-BLOWER			

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Cinema

Toys for the boys

STRIPTEASE
Andrew Bergman

ESCAPE FROM L.A.
John Carpenter

THE GREAT WHITE
HYPE
Reginald Hudlin

ANTONIA'S LINE
Marleen Gorris

THE INCREDIBLY TRUE
ADVENTURES OF TWO
GIRLS IN LOVE
Maria Maggenti

GUANTANAMERA
Tomas Gutierrez Alea and
Juan Carlos Tabio

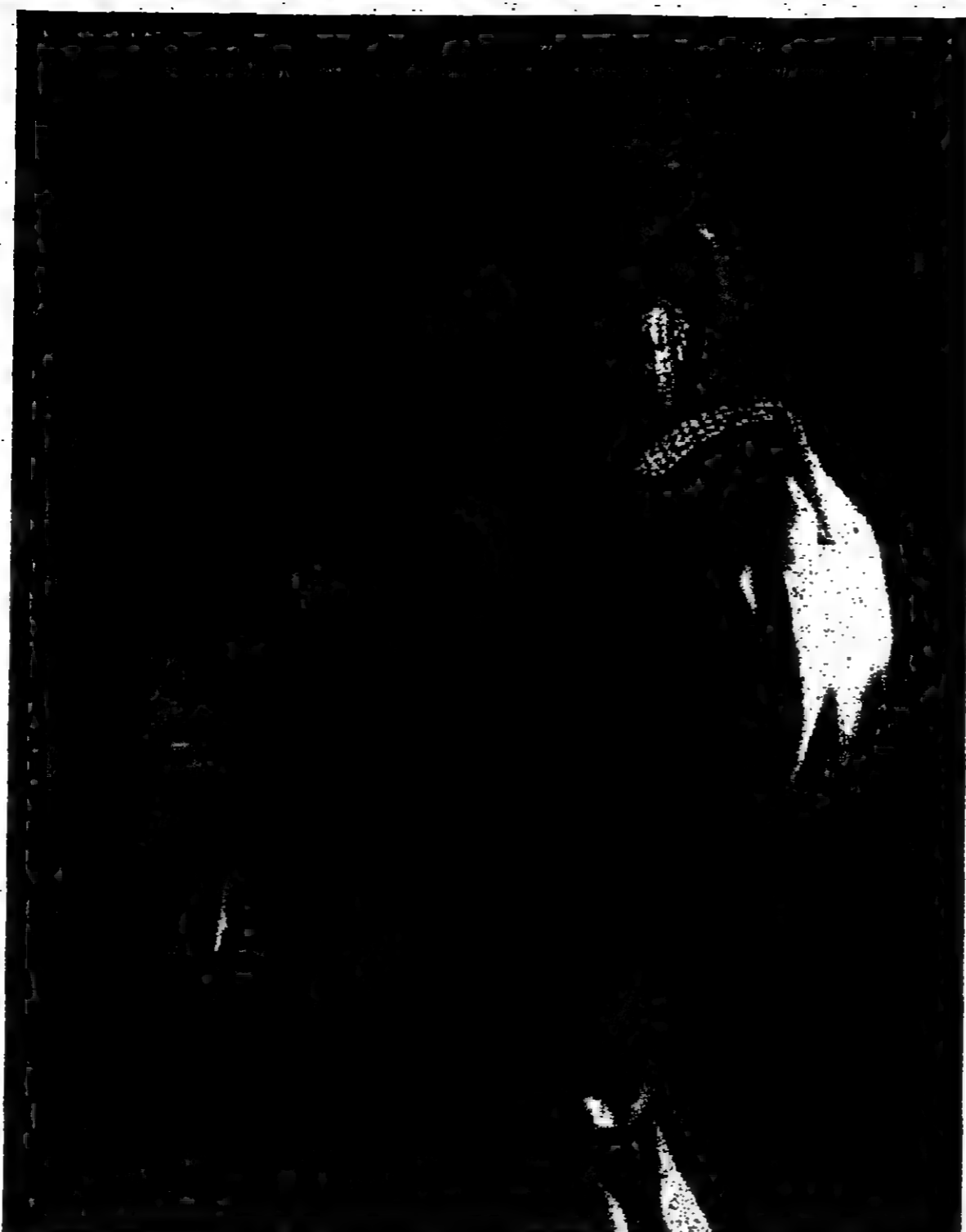
The welcome nip of early autumn means the end of packaged family fare, cinematically speaking. Alas, it heralds the season of toys for the boys. Last week the cerebro-masturbatory pseudery of Godard and now the more basic wares of *Striptease*. The advance hype has been formidable, and yes, Demi Moore is as unlikely as an ex-FBI secretary-turned-stripper as Lisa Minelli was as Home Counties Sally Bowles. Both actresses are much too professional at their fictional show-biz jobs.

Not that Moore of the well-muscled thighs is exactly erotic in her routines. Athletic, gymnastic, interpretative (a few more clothes and she could scoop the cup for creative dancing at any village hall festival), but tingingly sexy, no.

While this fills out her role as devoted mother struggling to win custody of her tot (played by Moore's real-life daughter Rumer Willis with wonderful naturalness) from fruitcake criminal ex-husband, it makes nonsense of the obsessive spell she casts on a congressman prone to satyrism, and the murderous mayhem that ensues. The film is funnier than expected but not so funny as it seems to think itself. Armand Assante is miscast as a good cop; But Reynolds as the piteous politico has enough comic accomplishment to make one regret the comedy's ham-fistedness.

More toys for the boys in *Escape from L.A.* a range of James Bond-type gadgets for the apocalypse. It is 15 years since Kurt Russell's anti-social Snake Pliskens did the state some service in *Escape from New York*. Here he is again with an impossible mission: to penetrate the penal island that a post-earthquake Los Angeles has become to get back the black box that means mastery of the world from the president's renegade daughter, killing her if necessary.

Production designer Lawrence B. Paul, of *Blade Runner* fame, creates a marvellously murky post-apocalyptic L.A. The freaks that flourish there include Peter Fonda's zonked-out surfer, a black transsexual criminal (Pam Grier), a gibbering show-biz entrepreneur (Steve Buscemi) and the Latino rebel who threatens the USA (George Corrajo). Violence is unconvincing, some special effects look contrived (a tidal wave surging along Wilshire Boulevard, for instance), but the film's most intriguing element is its political stance. The appalling president rules a religiously orthodox US where sex



Demi Moore in 'Striptease': a few more clothes and she could scoop the village dancing cup

outside marriage, red meat and smoking have been outlawed. The closing sequence shows our hero puffing contentedly on the last cigarette on the continent, a comment on political correctness I thoroughly endorse. But one's never sure if the cavalier attitude to the Third World and the assumption of nefarious motives in expendable lesser races are intended seriously.

The Great White Hype's jokey references to a more famous play and film about a black boxer reverses the cliché. Here we have a white boy (Peter Berg of *Chicago Hope*), a one-time amateur pugilist, dragged out of obscurity in grunge rock and launched as an Irish fighter ('I'm not Irish,' he keeps protesting) to provide a sitting target for the cooed and under-employed champion. It all sounds terribly plausible. The screenplay by Tony Hendra and Ron Shelton goes further than mere sporting satire: this is a game of power, bluff, gullibility and exploitation. Reginald Hudlin's direction is pacey and stylish. The casting of Samuel L. Jackson (*Pulp Fiction*, *A Time to Kill*) as the unprincipled promoter, turbaned, coiffed and bejewelled, and Jeff Goldblum as a crusading TV journalist who sells out suggests a savage satire was intended, but it seems to have fizzled out. A shame, but Hudlin is a name to watch.

The week's releases include some feminist ballast to balance all this boyish biffing. *Antonia's Line* won an Academy Award as best foreign-language film in 1995, making Marleen Gorris the first woman director to receive an Oscar. At its best the gentle saga of village life covering

the past half-century is suffused in tenderness and warmth. The village contains more oddballs than *Cold Comfort Farm*: a woman who bays at the moon, a curate who renounces religion to live with an earth-mother and have a dozen children, two village idiots who happily marry and reproduce, and so on. Its main fault is that it falls victim to the Archers syndrome. This is a magnificently matriarchal society, but in this world of bucolic feasting, healthy toil and cheerful mollocking, there are no Pop Larkins. For the most part the men are there to sire children or provide villas - in one case a whole family: incestuous child-rapist who joins the army, bullying father fatally kicked by a cow he mistreated, murdering brother...

Willeke van Ammelrooy makes a loving, dignified Antonia. Subsequent generations include an artist, an academically brilliant grand-daughter, and a great-granddaughter who inherits the family gift of quirky second sight. The academic has problems with relationships - but then she was raped as a child. Otherwise one wishes the sweetness could be diluted with a little bitchy asstringency. Dora Selack's score sometimes appropriately resembles a rustic Mahlerian jog-trot with a hint of the dance of death not far behind.

The director Maria Maggenti has been signed up to write for Steven Spielberg. An imaginative stroke, given that *The Incredibly True Adventure of Two Girls in Love* is

about teenage high-school romance - lesbian style. In fact it's an engaging piece about a bohemian tomboy and a rich babe from a conventional background (by a nice reversal of stereotypes, the mansion-dwelling kid is black). A serious look at emotional exploration in the face of peers' hostility turns into a romp when the girls flee to a motel whither resort both families, school-friends, and ex-lovers and their jealous spouses in a finale that needs a Feydeau to choreograph it. Lovely performances from Laurel Holloman (tomboy) and Nicole Parker (princess).

The idea of breaking up a long funeral journey for economic reasons by making each district passed through responsible for its own relay of the cortege, sounds oddly similar to much in Conservative Britain: the BBC, the postal service, the railways. Yet in *Guantanamo* this is postulated as a typical bureaucratic idiocy in socialist Cuba. A co-director of this gently farcical comedy, allegedly based on fact, is Tomas Gutierrez Alea, director of the 1988 *Memories of Underdevelopment* that put Cuban cinema on the international map. This is small beer in comparison, though like the earlier work it contains some mocking criticism of communist bureaucracy. The plot follows a group of mourners taking a corpse to its home town for burial constantly encountering a lorry driver who has loved the woman mourner since she taught him at college. The mood is Caribbean zany: episodic, rollicking, incongruous.

Martin Hoyle

Leeds Piano Competition/David Murray

The keyboard gladiators

The 12th Leeds International Piano Competition, now sponsored by Yamaha, has reached its semi-finals. By this stage only 12 competitors remain, out of the original 86. Each delivers a 75-minute recital: then, on Friday and Saturday, the six lucky finalists get to play concert with Simon Rattle and the CBSO, transmitted live on Radio 3 and BBC2.

Only one pianist from any English-speaking country, a young Irishman, has reached the semi-finals. His teacher is a member of the jury - but so always are the teachers of many competitors, including some who fall at the first hurdle; with an international jury of more than a dozen distinguished piano specialists, that is inevitable. Three other semi-finalists are in the same position. Last time round, three years ago, the unexpected winner had two teachers on the jury.

The current semi-finalists have been making sterling impressions. The youngest of them, 17-year-old Sa Chen, not only Chinese but wholly China-educated, displayed

exuberant panache, imagination and a terrific left hand in Liszt's *Rhapsodie espagnole*, and both sensuous delicacy and strength in Ravel's *Gaspard de la nuit* (if too little real *pp*, let alone *pppp*). Though her Chopin, the 3 minor sonata, glinted with fresh ideas too, its reflective slow movement reminded us that we were hearing a hugely talented teenager.

Carlo Guaitoli (Italian, 26) was deft and fleet in Dutilleul's sonata and Schumann's G minor one. Rather too tight-strung, without stretch or spring; that suited Prokofiev's A minor sonata very well, but not Guaitoli's chosen Debussy preludes, marred by little *ff* explosions that broke the textures and the spell. Theodoros Satolli (Greek, 21) sounded pedestrian in Bach and ponderous in Granados. She screwed her eyes up at every poignant juncture - a tic she might usefully lose; but then she erupted in a powerful, grandly modelled Liszt B minor sonata, and a sumptuous *La Valse* in Ravel's own barely playable transcription.

To that same Liszt sonata and also to Beethoven's

neglected op. 7, Mzia Simonishvili (Georgian, 30, mature, infectiously jolly) brought full-blooded feeling, wit and robust technique. She tended to become hectic toward the ends of things. Armen Babakhanian (Armenian, 28) was more coolly calculating with everything he played, almost stagey. But his calculations were precise: his Beethoven "Appassionata" went off with a resounding impact, and his Tippet 2nd Sonata was gleefully eager and sharp.

Though Dmitri Teterin (Russian, 24) is reported to have played Chopin's two books of *Etudes* splendidly in the second round, he cannot have done himself justice in these semi-finals. Idiomatic feeling in a Shostakovich prelude-and-fugue, but laboriously slowed for difficult bits; a dull Gluck transcription, hardly worth playing; Beethoven's 32 Variations, with limply irresolute endings for almost every one, and a patchy Liszt *Venezia e Napoli* with toneless pianissimo. And yet he does seem to be a pianist of parts; perhaps the two Russian jurors will help to see him through?

Theatre/Alastair Macaulay

A satire to kill for

Popcorn, Ben Elton's new play, is so now and so on-target, so delicious a blend of thriller and satire, that one can only wonder why it is not having a London opening. At any rate, congratulations are due to the Nottingham Playhouse, where *Popcorn* is having its first-rate premiere production, and the West Yorkshire Playhouse, to which it will transfer next month.

Primarily, *Popcorn* is satire, virtuosic satire on the way our culture encourages individuals to deny responsibility for their own actions. The scene is L.A.; and the central figure is Bruce Delamitri, an American film director, beyond Tarantino in his talent for making killing seem witty, sexy, and glamorous. Newt Gingrich and the American right are blaming him for his influence on real-life killers. And then we see two real-life killers, who kill and steal for fun, and who are, indeed, steeped in Delamitri's films.

In fact, when first we see them, we presume they are film characters he has created. But no. Not only are Wayne and his girlfriend Scout for real, they kill and

burglar their way into Delamitri's house while he is out winning an Oscar. They come downstairs from having made love in his bed to find him making love downstairs with Brooke, a nude model whom he has picked up. Wayne and Scout could not be happier. Delamitri is their hero! They've seen Brooke's double-page spread! And they're holding them both at gunpoint!

Wayne's brain-wave, however, is to claim innocence. He and Scout are victims, victims of the culture they live in and they want Delamitri, as a prime shaper of that culture, to take responsibility for their actions, and to admit that responsibility on TV. If not, they'll blow out either his brains or those of his nearest and dearest... The next twist in the action are enthralling. *Popcorn* mixes horror and comedy well enough to resemble a Tarantino movie, even while it satirises Tarantino's America.

Director Lawrence Boswell has the *Popcorn* unfold as surprisingly and as fluently as he has done with plays by

Lope de Vega and Euripides. Above all, there are two outstanding and well-matched performances by Vincenzo Nicoli as Delamitri and Patrick O'Kane as Wayne. Nicoli, easily carrying much of the play in its hardest role, is an outstanding actor. Projecting physical and mental force, he is both menacing and vulnerable, likeable and disturbing, and he catches Delamitri's mixture of victimhood and absurdity to perfection. Patrick O'Kane makes Wayne a rivetingly ludicrous figure, a shrewd nerd, so blithely relaxed amid the mayhem he creates as to be sexy. His violence is so spontaneous that it takes us by surprise, every time. Dena Davis is his perfect foil as the part-dumb, part-alert Scout.

Popcorn's satire is not its only virtuous element. It is very well constructed; Elton has been learning about playwriting fast. No, this comedy is not some modern classic. It is, however, marvellously welcome because it is so needed.

Nottingham Playhouse until October 13; then Leeds, West Yorkshire Playhouse, to November 9.



Martin Hoyle Dena Davis and Vincenzo Nicoli in Ben Elton's 'Popcorn'

Alastair Macaulay

INTERNATIONAL ARTS GUIDE

AMSTERDAM

EXHIBITION
Stedelijk Museum Tel: 31-20-5732911
● Betty Woodman. Vazen en tekeningen: exhibition of vases and drawings by the American ceramicist Betty Woodman; from Sep 21 to Nov 10

BERLIN

CONCERT
Philharmonie & Kammermusikkolleg Tel: 49-30-2614383
● Rundfunk-Sinfonieorchester Berlin: with conductor David Shallon and soprano Christine Schaffer perform works by Dukas, Rimann, Stravinsky and Debussy; 8pm; Sep 22
● Südwestfunk-Sinfonieorchester, with conductor Jiri Belohlavek and violinist Christian Tetzlaff perform works by Schoenberg and Brahms; 8pm; Sep 20

EXHIBITION

Alte Nationalgalerie Tel: 49-30-2035550
● Manet bis Van Gogh. Hugo von Tschudi und der Kampf um die Moderne: exhibition on the occasion of the 100th anniversary of the appointment of Hugo von Tschudi as director of the Alte Nationalgalerie. Main theme of the exhibition is his leading role in the introduction of modern French Impressionist art in Germany. The display includes works of French art that were acquired in those days by the Alte Nationalgalerie and other German museums and collectors; from Sep 20 to Jan 6

COLOGNE

CONCERT
Kölner Philharmonie Tel: 49-221-2040820
● Ensemble Modern: with conductors Peter Eötvös and Jobst Lebrecht and narrator Heinz Klaus Metzger perform works by Tsangaris, Varese and Beethoven; 8pm; Sep 22

EXHIBITION
Museum Ludwig Tel: 49-221-2212379
● Lewis Hine - Die Kamera als Zeuge: exhibition of photographs by the American sociologist Lewis Wickes Hine (1874-1940). Among the works are his photographs of American immigrants on Ellis Island, child-labour, and the construction of the Empire State building; to Nov 24

COPENHAGEN

EXHIBITION
Charlottenburg Exhibition Hall

Tel: 45-33 13 40 22
● 125 years of Danish Sculpture - The Royal Museum of Fine Arts Visits Charlottenburg: on the occasion of the 125th anniversary of Den Danske Bank, a series of exhibitions is presented at 18 art museums and galleries all over Denmark under the title "Danish Sculpture in 125 Years". Each exhibition provides a survey of what has happened in the field of Danish sculpture since the era of the classical sculptor Bertel Thorvaldsen. The exhibition at the Charlottenburg Exhibition Hall features nearly 200 sculptures, selected from the collection of the Royal Museum of Fine Arts; from Sep 21 to Oct 27

INDIANAPOLIS

EXHIBITION
Indianapolis Museum of Art Tel: 1-317-923-1331
● The American Discovery of Ancient Egypt: exhibition of more than 200 Egyptian artefacts discovered by American scholars between 1899 and 1970. Works range from the pre-dynastic period (about 4000BC) to the end of the Roman period (AD395) and include jewellery, ceramics, free-standing sculpture and reliefs; to Sep 29

LONDON

CONCERT
Barbican Hall Tel: 44-171-6384141
● The Kingdom: by Elgar. Performed by theournemouth Symphony Orchestra with conductor Richard Hickox,

soprano Susan Chilcott, contralto Linda Finnie, tenor Adrian Thompson, baritone Peter Coleman-Wright and the Bournemouth Symphony Chorus; 4pm; Sep 22
Wigmore Hall Tel: 44-171-935214
● Mary-Anne Harnell: the pianist performs works by Mozart, Janacek and Prokofiev; 11.30am; Sep 22

EXHIBITION

Tate Gallery Tel: 44-171-8878000
● Tacita Dean "Foley Artist": Tacita Dean often works within the framework of cinema. In "Foley Artist", she principally uses sound, rather than pictures or dialogue, to convey a story, and to evoke its mood and setting. Foley artists are the little-celebrated film professionals who invent sounds to accompany visual footage, using a wide range of props. Dean has worked with foley artists to create a multi-track narrative based on sound effects. Individual elements are relayed to speakers placed around the Art Now room; to Nov 10

LOS ANGELES

EXHIBITION
Los Angeles County Museum of Art Tel: 1-213-857-6000
● Designing Modernity: The Arts of Reform and Persuasion, 1885-1945: this multi-media exhibition seeks to explore western society's response and reaction to modernisation, the dominant force following the industrial revolution and proceeding through the aftermath

of the second world war. The display features nearly 285 objects including European and American paintings, sculpture, prints, furniture, metal work, ceramics, glass, books, toys and ephemera. Artists represented include William Morris, Frank Lloyd Wright, Peter Behrens, Hector Guimard, Mies van der Rohe, Marcel Breuer, Ivar Nørgaard and Walter Dorwin Teague; to Sep 22

MADRID

EXHIBITION
Palacio de Velázquez Tel: 34-1-573-52-45
● Cindy Sherman: exhibition of a selection of some 70 photographs featuring examples of her "Untitled Film Stills" of 1977-80 which brought Sherman international recognition. Also on show are works from her most extreme photo-series "Disgust Pictures" (1988-1989), "Sex Pictures" (1992) and "Horror Pictures" (1995), the most recent of which have not been exhibited previously; to Sep 22

NEW YORK

EXHIBITION
The Metropolitan Museum of Art Tel: 1-212-879-5500
● American Printmaking 1880-1900: Winslow Homer and His Contemporaries: an exhibition to complement the Homer painting retrospective by providing a context for the artist's printmaking efforts. Drawn from the museum's collection, Homer printmaking from his early and

late career is shown along with works by printmakers active during Homer's career; to Sep 22
The Pierpont Morgan Library Tel: 1-212-685-0008
● 17th Century Dutch Drawings in The Pierpont Morgan Library: this complementary exhibition to "A Fine Line: Rembrandt as Etcher" includes about 70 works by masters of the Golden Age of Dutch Art; to Jan 5

VIENNA

EXHIBITION
Kunsthistorisches Museum Tel: 43-1-32524
● Meisterwerke aus der Prager Burggalerie: exhibition featuring a selection of paintings from the collection of the Fortress of Prague, which holds mainly works from the Renaissance and Baroque periods. The display includes 29 works by artists such as Palma Vecchio, Tintoretto, Bassano, Veronese, Pordenone, Stevens, Hans von Aachen, Rubens, Fetti, Peter Brandl and Jan Kupecky; to Sep 22

ZURICH

DANCE
Opernhaus Zürich Tel: 41-1-268 8868
● Goldberg-Variationen: a choreography by Heinz Spoerli to music by J.S. Bach, performed by the Zürcher Ballett; 2pm; Sep 22
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COMMENT & ANALYSIS



Peter Martin

The end of a golden era

A growing reluctance among companies to run pension schemes for their employees symbolises the gradual weakening in their long-term relationship

A profound change is taking place in the relationship between companies and the people who work for them.

Corporate rhetoric obscures the change. Bosses still parrot phrases such as "people are our most important asset". The widespread sackings of the recession are portrayed as one-off blood-lettings, essential to preserve the jobs of the workers who remain.

Yet under the surface, everything is in flux. The transformation of the relationship between company and workforce is best illustrated not by the occasional moment of crisis when only brutal action can ensure survival, but by the thousands of humdrum decisions made in calmer times.

For example, on pensions. Nothing could be duller, less dramatic, than a British company's pension policy. Yet nothing better symbolises the nature of the long-term relationship between a company and its employees.

The very existence in the UK and other Anglo-Saxon countries of funded company pension schemes is testimony to a particular view of that relationship. Not only did companies, big and small, agree to contribute to their employees' pensions; they also took the responsibility of organising the scheme and in effect guaranteeing the ultimate income, usually as a percentage of final salary.

The essence of such "defined-benefit" final-salary schemes has been that they shifted the risks of such long-term savings on to the shoulders of the company.

Those risks are substantial: that contribution levels might not create a big enough pot of money at the end of a career; that the value of these assets might fluctuate during the years of retirement; that inflation might erode the value of the stream of payments. An

individual seeking to contract independently to cover such risks with insurance companies or other long-term savings institutions must pay a substantial price.

Yet companies have been willing to take on the role of paymaster of last resort for their pension schemes, receiving no fee for the task. Acting as a pension fund's Deep Pocket has benefits for the company and its shareholders that go well beyond the tax advantages involved. In particular, it has allowed UK pension funds to make a huge bet on equities.

Shares offer consistently higher long-term returns than assets such as bonds or cash, at the price of potentially greater volatility. An individual saving for the long term would have to bear that volatility in mind: what if retirement coincided with a period of low equity values?

In a defined-benefit pension fund, this risk is borne by the sponsoring company. Because it promises to top up the fund if needed, the scheme's managers can ignore the risks attached to equities as a class. The higher returns derived from equities greatly reduce the

long-term cost to the company of providing pensions: indeed British business as a whole has made little or no net contribution to pension funds in recent years.

Still, a company is not a co-operative or a charitable institution. The risks for shareholders inherent in this approach have been absorbed in the past by a number of characteristics of the British pension system.

Early leavers - whether voluntary or involuntary - traditionally received poor treatment compared to those who stayed to retirement. Arguably, it is they who have borne the true burden of the pension guarantee. Pensioners retiring at times of sharply rising prices also risked a fall in the real value of their incomes, since companies often increased pensions by less than the rate of inflation.

Both these injustices have been corrected by amendments to pension law and a falling rate of inflation. But this has removed the safety valve which made companies happy to guarantee defined-benefit pensions. The introduction of an obligatory "Minimum Funding Requirement" as an

annual check on the solvency of pension schemes has raised the stakes further: it is likely to raise the long-run cost of pensions by pushing many funds away from equities and towards bonds.

The corporate reaction has been instructive. Companies are increasingly unhappy to assume the risks they once freely chose to accept; some are washing their hands of the pensions business altogether.

A growing number has replaced defined-benefit plans with "defined-contribution" schemes: employees receive a pension that reflects the return on the contributions made on their behalf, with no link to final salary. Others have gone further, merely offering to contribute to employees' personal pensions.

These relatively arcane changes have revealed the inherent tension between the company as a vehicle for its shareholders, and the company as a social entity. Recession has in any case weakened the social role of the company: if it cannot offer employment stability, it becomes progressively a more fragile community.

Yet the pensions issue goes to the heart of the company's identity in a way that even job instability does not.

Is the company merely a bundle of assets with an income stream, a net present value and a market price? Or is it a social organism, part of a historical continuum stretching back to its founders and forwards to those future employees who will carry on its name and values?

A caricature of national business cultures would have continental European countries lined up with the second view; Anglo-Saxon ones with the first. In practice, for most of the modern era, all but the most ruthless English-speaking asset-

strippers have believed nearly as strongly in the continuum theory as their continental cousins. It answers, after all, the deep human need to create immortality, to leave something behind to mark one's passage.

The creation of funded pensions illustrates that belief. It is not just the money. There are also the rituals that accompany it - the pensioners' lunches, the cheery newsletters, the encouragement of a sense of shared community between those who started work today and those who retired a generation ago.

This era is drawing to a close. Smaller companies, most sensitive to pension costs, are voting with their feet. A survey carried out for an actuaries group and published this week found that among smaller companies with defined-benefit schemes, 16 per cent have closed them to new entrants. Two-thirds of new defined-contribution schemes have been set up to replace earlier defined-benefit arrangements. And the survey found, defined-contribution schemes are noticeably less generous, in terms of company contributions, than the typical defined-benefit scheme.

Even if the final-salary pension is on its way out, the millions of people currently covered by such arrangements will benefit from them well into the 21st century. But the shift away from this type of pension scheme indicates a change in the zeitgeist. Like the trend towards unbundling the corporation, the pension issue illustrates how British companies are becoming more like their Anglo-Saxon counterparts.

"The changing face of UK occupational pensions in smaller companies. Association of Consulting Actuaries, No 1 Wardrobe Place, London EC4V 5AH

As if his own personality

MEMOS FROM THE CHAIRMAN: By Alan C. Greenberg
Workman, \$14.95, 156pp

Despatches from the king of paper clips

Long, pompous, irrelevant the average office memo is an uninspiring document. The idea that someone should have saved up their own memos over 18 years and turned them into a book to "benefit everyone in business from Fortune 500 chief executives to entrepreneurs" is a curious one.

Yet these are not just any old memos and Alan "Ace" Greenberg, the head of Bear Stearns since 1975, is not any old chairman. His picture on the dust-jacket shows a bald man playing with a yo-yo - making clear that Ace is one hell of a guy. In the preface his great friend Warren Buffett assures us that "Ace Greenberg does almost everything better than I do - bridge, magic tricks, dog training, arbitrage - all the important things in life".

Management guru Tom Peters is still more breathless: "I love this book. If I didn't have a dreaded MBA I might even, at age 53, apply for a job at Bear Stearns," he says on the back cover.

Not all readers will feel like applying to the Wall Street securities house on the strength of this book, however. Alan Greenberg is certainly an ace at writing short, punchy memos, but he does not come over as every one's idea of the ideal boss.

The typical memo gets off to a thundering, provocative start: "We are having a problem getting a point across!" or "Stop it now!" He proceeds to answer new rules about answering the telephone promptly and politely, turning lights off and looking clean and tidy.

Often he winds up with a threat: "From this date forward any person who violates this simple rule will receive a very quick simple fine. Enough is enough - we have tried being Mr Nice Guy - it did not work."

As if his own personality

were not enough to keep his staff to the straight and (very) narrow, he has invented an imaginary consultant called Haimchinkel Malintz Anaynikal to help him. Haim, a tightwad reactionary, believes the following: 1. Hire PSDs ("poor, smart and a deep desire to become rich"). 2. Make decisions on common sense and avoid the herd. 3. Control expenses. 4. Beware of catchy phrases. 5. Stay humble.

The approach of Greenberg and Haimchinkel is delightfully unfashionable. Modern chairmen are supposed to empower the workforce to make its own decisions, concentrating their own efforts on setting strategy. But Greenberg does not believe in strategy.

"It was just announced that some prominent people in M & A just left a firm because of a difference of opinion over strategic planning," he wrote in 1983. "At Bear Stearns we have no strategic planning."

Once again, Haimchinkel Malintz Anaynikal comes out as one smart dude. Remember his Axiom 1025? "The amount of discussion rises geometrically with the more issues you have to philosophise over."

The more of his memos you read, the more sensible Greenberg's approach appears. Making money, especially in a trading business, really does consist in paying close attention to detail and tirelessly enforcing the company's rules.

Expenses need to be controlled, though one wonders if Greenberg goes too far. Nearly a quarter of his memos are concerned with cutting costs, and no cost is too small to be cut.

In 1985 he issued this edict: "I have just informed the purchasing department that they should no longer purchase paper clips. All of us receive documents every day with paper clips on

them. If we save these paper clips, not only will we have enough for our own use... but we will collect excess and sell them."

A week later he sent out another memo: "I would like to extend our cost-cutting efforts to a larger matter. Bear Stearns will no longer purchase rubber bands. If you have trouble understanding [this] either trust me or call Haimchinkel Malintz Anaynikal directly."

"Make me rich" he kept urging jokingly in his early expenses memos. But by the later ones he invokes the company's profitability instead - there is no further mention of his own wallet. Indeed, by 1994 he was receiving adverse publicity in the US for his \$13m (\$4m) pay packet.

Still, as Greenberg points out, his individual managerial principles seem to work. More than a decade before the Barings crisis, he was sending threatening memos about the error account and offering rewards to staff for shopping colleagues. Moreover, when everyone else on Wall Street was cutting jobs each time the market turned down, Bear Stearns went on hiring.

However much one admires Greenberg's dash, the ever-present Haimchinkel Malintz Anaynikal grates on the nerves. More dreary still is the way he quotes from earlier memos and demands that staff refer to those written several years earlier. This strikes an unfortunately dictatorial note. A good memo may be an art form, but it is surely meant for the moment. One cannot help wondering whether Greenberg lives by the rules of his beloved Haimchinkel: "Stay humble humble humble."

Memos From The Chairman is available from FT Bookshop. FreeCall 0800 418 419 (UK) or +44 181 964 1251 (outside the UK). Free p&g in UK

As if his own personality

LETTERS TO THE EDITOR

Number One Southwark Bridge, London SE1 1JH
We are happy to receive letters from readers and to publish them in this column. Letters should be sent to the Editor, Financial Times, One Southwark Bridge, London SE1 1JH. Letters should be typed, double-spaced, on one side of the paper. They should be signed and dated. We reserve the right to edit letters for clarity and brevity. Letters may be published in the main international language.

What investors need to be told

From Mr Alex McCarty.
Sir, Referring to Barry Riley's "When Scandinavia gets too hot for comfort" (September 11), I am pleased to see that some realise the difficulties facing the private investor, namely gauging the liquidity (and therefore the riskiness) of unit trust investments.

The fact is, that for 90 per cent of investors, such information is just not available. If one tries to get it or asks for more up-to-date information than an outdated managers' report, the reply is often: "That is sensitive information and cannot be provided."

I therefore take issue with

your comment on September 7 ("Misplaced trusts") that "investors would be expected to pay the price for such a lopsided portfolio". The investor has no idea that the portfolio is so lopsided or is illiquid because the managers refuse to inform their unitholders of the true state of affairs.

The only risks an investor can reasonably be expected to gauge are the regional market and currency risks in a regional fund, or the industry risks in an industry-specific fund. It is high time that Imro, the industry regulator, sat down and developed more stringent and useful

disclosure regulations. A liquidity ratio as discussed by Mr Riley would be a good start.

We all know that unless rules exist, next to nobody will volunteer information. As for the additional costs - they are minimal and should be absorbed by the managers who charge exorbitant management fees. A comparison with their "expensive" German competitors would open a few eyes in the UK fund management industry!

Alex McCarty,
Ockenfels 4,
D-80602 Munich,
Germany

No such market for top executives

From Mr Peter M. Oppenheimer.

Sir, One gets tired of hearing both sides as the Institute of Directors justifying, or explaining, top executive salaries in the UK by reference to a supposed international market for the executives in question ("Top directors' packages rise by more than 12 per cent", September 17). There is no such market. Leading executive positions in the larger companies are filled overwhelmingly by nationals

of the company's own country of origin and head office. Exceptions to this rule are almost invariably persons who have made a long-term career in the company in question. The once-in-a-blue-moon international recruitment of an outside top executive is a headline-making sensation, not a routine market occurrence.

It might nonetheless be interesting to speculate to what extent, if there were such a market, British

executives would be capable of competing in it. Perhaps the IOD can tell us what percentage of UK executives with telephone-number salaries are (a) technically qualified in relation to the industry which employs them, and (b) able to conduct a conversation (or for that matter, order a boiled egg) in a language other than English.

Peter M. Oppenheimer,
Christ Church,
Oxford OX1 1DP, UK

Too simple an argument over France

From Mr Charles Wilson.

Sir, Mr Robert Rainford (Letters, September 17), in his desire to remove confusion on the Euro debate, seems to be going too far in his desire for simplicity. He equates two facts: France has unacceptably high unemployment; France is trying to respect the criteria for Euro. If France were to drop its fight for Maastricht, the argument seems to be, we would be as happy as you all are over the Channel.

Mr Rainford seems to forget that most of France's other economic indicators show a brighter picture: low inflation, external trade in

balance, relatively low interest rates. What is wrong with the French economy concerns, unfortunately, those elements where Maastricht is an excuse for a medicine which would probably be necessary anyway - a state sector too large, and suffering problems caused by over-ambitious decisions made some years ago (Crédit Lyonnais), or from postponing uncomfortable decisions (over-capacity in weapons manufacture).

The private sector suffers from high labour costs, which are not the result of Maastricht's social chapter. France and Germany

decided many years ago on systems of social welfare which are politically untouchable, and they would like to see a level playing field where their nearest competitors are unable to take advantage of "social dumping" to obtain commercial advantage.

Dropping the fight for Euro may or may not be a good thing for France and for Europe, but surely there are better arguments against Euro than to say France has high unemployment, therefore Euro is bad.

Charles Wilson,
19, Allée Vauban,
Krynitz, S.W. France

Threat was ignored

From Mr Andrew Warren.

Sir, It is a simple oversight or willful tunnel vision that permits you - for the second year running - to publish a six-page supplement "Power in Asia" (September 16), without once making a single acknowledgement of the threat of climate change? It is not as if the governments upon whose electricity industry you report are non-contributors to the international forums, set up to try to deal with what is now acknowledged to be the world's most pressing environmental problem.

As the profligate burning of fossil fuels in electric power stations is the largest contributor to this threat, you might do well to report the expected 8 per cent growth in consumption by 2010 with other than unmitigated glee. Next time you might consider the full implications.

Andrew Warren,
director,
EuroACE,
Prins Boulevard 41,
2650 Edegem, Belgium

Deflated

From Ms Antonia Giulia Carzaniga.

Sir, I was surprised to read ("Italian inflation tumbles", September 6) that over the month of July, for the first time since 1968, a negative growth in inflation had been recorded in Italy. I suppose your report wanted to say that, for the first time since 1968, deflation (i.e. negative inflation), or, alternatively, a negative growth in prices, had been recorded.

Fortunately for the Italian economy, inflation, the growth rate of prices, had declined on many occasions since 1968.

Antonina Giulia Carzaniga,
junior research fellow,
Centre for European Policy Studies,
1 Place du Congrès,
B-1000 Brussels, Belgium

The Financial Times plans to publish a survey on

The FT500 Survey

on Friday, January 24 1997.

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Thursday September 19 1996

A slice of French fudge

The French government has needed a miracle to allow it to meet both its Maastricht promises and the ones it has made to the French electorate. Either that, or some very fancy budget footwork. Yesterday's 1997 budget was a deft example of the latter.

With no miracle in sight, the government has probably done as much as could have been expected in juggling the conflicting demands of its European partners, a stagnant economy and a disgruntled electorate. But the creative accounting it has taken to do it will not fool anyone.

On paper, next year's overall public deficit will be 3 per cent in line with the Maastricht criteria - but the real progress in slimming the gap between central government revenue and spending looks set to be very modest. Spending will be frozen in real terms - for the first time, it must be said, in the history of the Fifth Republic.

But taxes have also been trimmed in an effort to get the economy moving again. The end result, before the use of fancy financial footwork, is a central government deficit only FF4.9bn less than this year.

A few months ago Mr Jean Arthuis, the French finance minister, was keen to persuade the markets and his European colleagues that France would abide by the spirit of Maastricht

in its efforts to knock the budget deficit down to 3 per cent. Come the fateful day, there might have to be a fudge or two around the edges - but France must be seen to be trying.

The even slower than expected pace of the economy this year has made more drastic action very difficult, to be sure. Even with relatively optimistic assumptions, next year's budget deficit is now expected to be 3½ per cent of GDP. And it is now formally predicted that this figure will be massaged downward with France Télécom's special payment and other one-off transfers. This does not look like a bold effort.

One area where the government might have been bolder is in shrinking the size of the civil service. It has been able to promise a total reduction in jobs of only 5,000, out of 2.2m in the public sector. That is feeble. Social security spending is more difficult to cut quickly, but even there a continuing deficit of FF30bn is disappointing.

But the real problem is that Mr Arthuis has been forced to use his fudge so soon, which must restrict his room for manoeuvre next year if his assumptions prove too optimistic. He has sought to demonstrate his absolute determination to meet the Maastricht targets. But the exercise remains less than wholly convincing because of the fiddly-pokery.

Tangled yarn

For more than a decade, Europe's textiles and clothing sector has been caught in a spiral of decline to which there is still no end in sight. All the signs point to further heavy job losses, factory closures and restructuring. But instead of encouraging the industry to try to regain competitiveness, the European Union is planning action which seems destined to make its problems worse.

EU governments are poised to approve provisional anti-dumping duties of up to 30 per cent on imports of unbleached cotton fabric from several, mostly Asian, countries. The planned penalties result from a European Commission dumping investigation, launched after persistent lobbying led by French and Italian cotton weavers, which claim the imports are sold at unfairly low prices.

Unbleached cotton fabric is a raw material used in the manufacture of many types of textiles and clothing. EU production of the fabric has dwindled steadily and today meets barely a quarter of total demand. Dumping duties on imports amount to taxes on an essential input for European users. The predictable consequence will be to handicap internationally competitive textiles and clothing manufacturers and encourage them to shift more production, and jobs, to cheaper locations abroad.

This perverse exercise in

industrial policy also sends disturbing signals about EU trade policy. The Uruguay Round requires the EU to dismantle by early next century the quotas which have long ringed its textiles and clothing markets. But its progress towards that goal has so far been minimal. Under pressure from European producers, Brussels is insisting it will speed up the timetable only if developing countries agree first to liberalise their markets.

These are flatly resisting any such deal, arguing that the EU is demanding concessions from them as the price for fulfilling its obligations under international trade rules.

Intentionally or not, brandishing the dumping weapon looks like an attempt by the EU to apply coercion to trade partners after persuasion has failed. It raises doubts about the sincerity of the EU's commitment to removing quotas. It also arouses suspicions that any liberalisation thus achieved will be negated by the erection of new types of barrier.

The failure of years of protection to halt the contraction of the European textiles industry gives no reason to believe that more of the same will do any good. By continuing to shelter its producers, the EU is encouraging them to delay inevitable adjustments. As a result, eventual change will be still more painful than it need be.

Major's morals

When politicians talk about morality, it is time to head for the door. This is usually trying to sell something which is difficult to deliver.

Last night Mr John Major, the UK prime minister, stretched the language of ethics far beyond its limit by applying it to the ratio of public spending to gross domestic product.

Conservatives, Mr Major said, believed that reducing the role and size of government was not just a policy option, but a moral imperative. It was not moral, he said, to take too much tax from people for government to spend, and diminish individual choices.

The Tory faithful will chant a fervent "Amen". They will be delighted, no doubt, that their leader can show that Mr Tony Blair, the Labour leader, is not the only preacher in town.

The two contenders are trying to differentiate themselves by playing upon contradictory aspirations. Mr Blair would like Britain to be a more decent society, looking after the old and infirm, and educating children better. He knows the public wants this, but is unwilling to pay the price in higher taxes.

Mr Major emphasises individual choice (through tax cuts). But he knows that any serious move in this direction would require unpopular cuts in spending programmes such as health and welfare.

In all advanced economies, voters tend to demand the goods and renounce the price.

Governments connive by going into debt. So righteousness, if it exists in this context, consists in being honest about how the books can be balanced.

In the UK, as the Tories well know, the government's share of the economy has stayed obstinately close to 40 per cent for the last two decades. Despite all the "Conservatives' efforts, it is slightly above what it was when they came to power in 1979.

This is partly because the rise in unemployment has offset the effects of other reductions in the public sector.

However, at 43 per cent, the size of the UK's public sector relative to its economy is close to the average for all developed countries, significantly lower than the average for all EU countries (50 per cent) and not as different from Japan (37 per cent) as many people imagine.

This suggests that, although there is room for debate about the balance between the tax burden and state services, that achieved in Britain in recent decades is fairly close to what the public wants (and will tolerate) in much of the developed world.

Mr Major never tires of denouncing New Labour for the sin of offering benefits while suppressing the cost. If he wants to achieve superior righteousness he should now tell the public that lower taxes depend on cuts in services or benefits - and which ones. This is a new danger for both parties.

Smooth take-off for shake-up

British Airways is tackling its labour costs before it is forced to do so by competitive pressures, says Michael Skapinker

When a company changes in less than a decade from being a slothful state enterprise to being one of the few UK groups regarded by international competitors as a role model, what does it do for an encore?

This was the question facing Mr Robert Ayling when he took over as chief executive of British Airways at the beginning of the year.

At first sight, he did not have to do much. The company's pre-tax profits last year of £585m were the highest of any airline in the world. In this week's FT and Price Waterhouse survey of Europe's most respected companies, BA was placed second after ABB, the Swedish-Swiss engineering group. It was the only airline in the top 20, apart from Swissair which came 16th.

For Mr Ayling to have continued to run BA in the way it has been since it was privatised in 1987, however, would have been to ignore changes in the airline industry which threaten the profits of even the most successful carriers. Without radical change, according to Mr Ayling, BA's profits would have evaporated by the end of the decade.

Yesterday he announced that 5,000 of BA's 55,300 employees would be offered voluntary redundancy. They will be replaced, however, by a smaller number of more highly skilled, more flexible employees, who will be recruited over the next three years.

Managers in several areas of BA's business, such as baggage handling and ticket processing, have been told they must ensure they can do the job as cheaply as outside suppliers. If not, their activities will be contracted out.

The announcement was less dramatic than many employees had feared. There had been reports that the airline was planning to cut employee numbers by 10,000 and that the company would spend £200m designing a new logo.

"We are thinking about a new logo but we're not planning to spend £200m on it," says Mr Ayling. "I can't think of anything more insensitive than asking for 5,000 redundancies and then spending £200m."

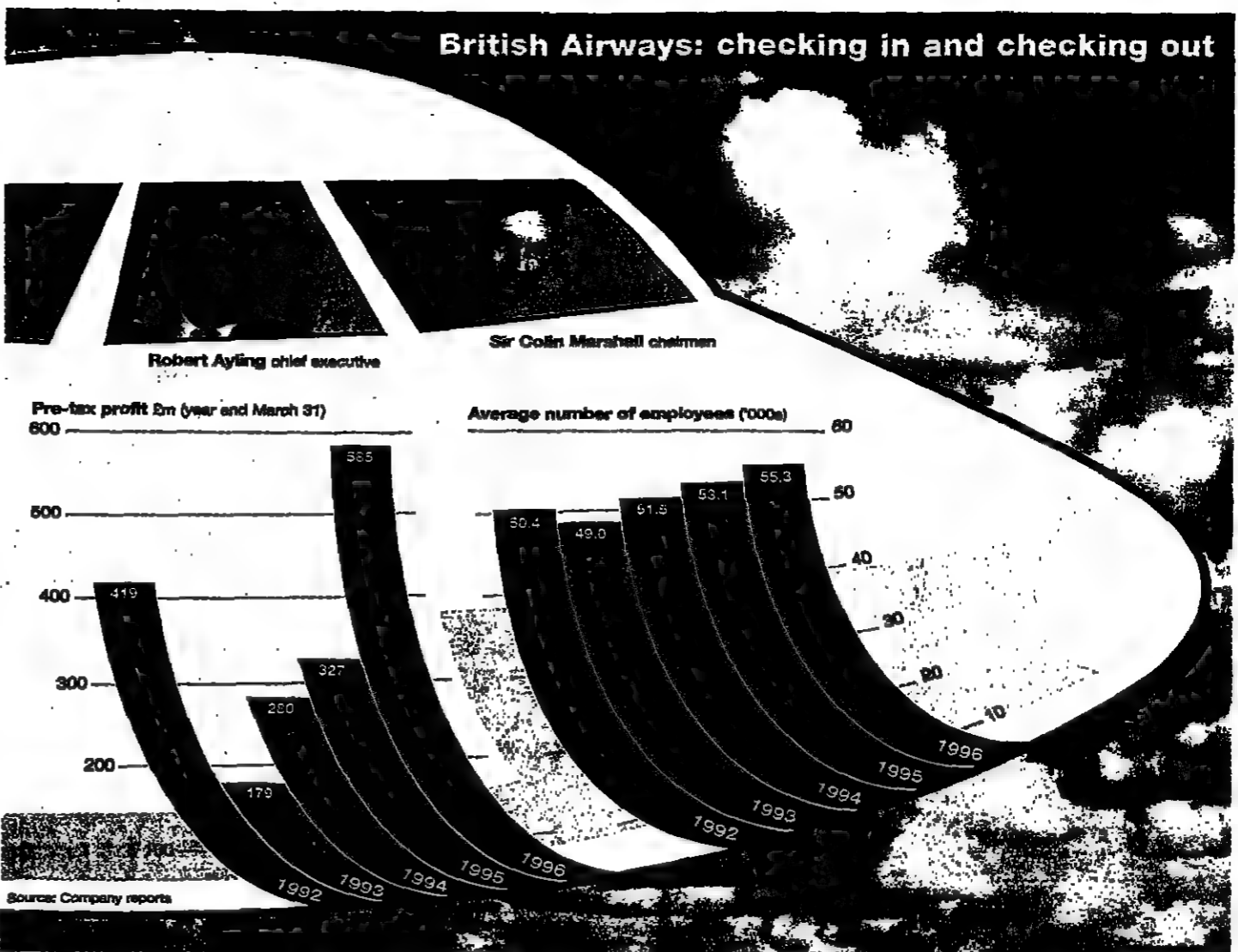
Mr Ayling says the plan announced yesterday was not a definitive statement of the shape of the airline at the end of the decade. Managers have been set targets on matters such as costs, aircraft punctuality and better use of assets, and told to find ways of achieving them.

"At the moment, I'm not dictating to my management and telling them what decisions to take. We have said: 'This is the need, these are the kinds of ideas we have. You know your business, you know there's a redundancy programme, you have your performance targets.'"

In a series of briefings to managers and unions Mr Ayling has portrayed the unforgiving world in which modern airlines operate.

"The competition is getting better and more efficient," he told staff yesterday. "Our customers expect more, but our cost of providing a seat has risen faster than the price customers pay in a highly competitive market."

Airline executives around the world have been repeating this message, often in more lurid



terms. Mr Robert Crandall, chairman of American Airlines, said this week of the aviation industry: "It's one of the most miserable businesses in the world."

Add up carriers' financial results since the start of commercial flight, he said, and you will find that the world's airlines have made a cumulative loss.

And Mr Jürgen Weber, chairman of Lufthansa of Germany, warned employees earlier this month that their airline would go bankrupt without a cut in employment costs.

"What we really need is a negative pay increase," he told them. "How could it be otherwise, since we get less and less money for our tickets? If we don't want to make losses again, we have to do something about our personnel costs - otherwise I can calculate right now when we'll go bust."

Central to the problem is the long-term fall in air fares. Airline yields - the amount received for each mile they carry a passenger - are falling by 1 per cent a year, according to Boeing of the US, the world's biggest aircraft manufacturer.

The reasons for the fall include the greater competition induced by liberalisation of air travel in the US in the 1980s, which is being followed by increased deregulation in Europe. Low-cost carriers, which offer little on-board food or entertainment, are entering the market, undercutting the fares of large airlines.

Long-haul travel - from Europe to Asia, for example - is growing more quickly than short-haul. This depresses fares as airlines can charge more per mile for short flights than for longer ones. And leisure travel is grow-

ing faster than business travel. Holidaymakers are not prepared to pay as much for their tickets as business travellers.

The most obvious area for airlines to tackle if they want to win an advantage over competitors is labour costs, says Mr Rigas Doganis, professor of air transport at Cranfield University in the UK.

"Airlines fly broadly similar aircraft, they pay similar prices for fuel, the same prices for landing, overflight and computer reservation systems. The only variable they can influence is labour costs," he says. Staffing costs typically account for between 25 per cent and 35 per cent of operating costs.

Prof Doganis, who served as chairman of Olympic Airways for 14 months before being dismissed earlier this year by the Greek government, says airlines can cut labour costs without substantially changing the way they do business.

"You can freeze wages, reduce staff numbers and change working conditions such as the number of hours pilots can fly and how many rest days they have," he says. "But once you've exhausted what you can do with your own staff, you can go further and start contracting out, seeing if anyone else can do it more cheaply."

Contracting out airline activities is a well-established feature of the industry. It is common for carriers to pay outside caterers to feed their passengers. Many airlines rely on other carriers or specialised companies to handle their baggage, check in their pas-

sengers at foreign airports and service their aircraft. And Singapore Airlines has some of its accounting work done in China.

BA has been an enthusiastic practitioner of one of the most radical forms of contracting out: getting other airlines to fly under its name. The company has nine franchisees, independent airlines with aircraft painted in BA colours and staff wearing BA uniforms.

Most of the airlines BA has franchised to fly in its colours are British: last month the company reached agreement with British Mediterranean Airways, a UK-based carrier, to fly in BA colours to Beirut, Amman and Damascus in the Middle East. But there is also a Danish franchisee and one in South Africa.

These franchise arrangements produced £50m in revenues for BA last year. Mr Ayling said yesterday he wanted to see this figure doubled.

In other areas of contracting out, he is proceeding cautiously, allowing in-house staff to try to get their costs down to the level at which an outsider contractor could do the job. Mr Ayling says that a year ago BA reached agreement with the unions representing the ramp workers who refuel aircraft and load baggage that they would reduce their costs to the point where they were competitive with outside suppliers.

Another department which has been placed under pressure is passenger revenue accounting, which is responsible for processing tickets after passengers have boarded the aircraft. Mr Ayling says BA is unusual in doing this work in its home country.

American's ticket processing is

done in the Caribbean. Swissair's is done in India. "You might say BA has been a bit slow here," says Mr Ayling.

BA already employs a group of graduates in Delhi to correct computer errors which appear on its booking system. It has also set up an operation in Bombay to do some ticketing work and they could eventually take over the rest of it. Some of BA's computing programming will be put out to contract rather than done in-house.

Mr Ayling says the airline would not seek to cut costs to market levels in all cases. BA cabin crew had to have a higher level of expertise in foreign languages, for example, than flight attendants working for charter airlines. The company would have to accept that it had to pay more for certain highly skilled staff.

All of this adds up to a much less threatening package than some staff had feared. This is probably because the airline is taking action well before it needs to. Unlike companies which cut costs when financial disaster strikes, BA has decided to begin the process when its aircraft are full and it is making record profits. This means it has time to consider how best to cut costs.

"It's good management to take action when you are performing well," Mr Ayling says. "If we can't carry on as we are, we should start doing something about it now and not in three years' time."

BA had in the past been criticised for being short-term in its outlook, says Mr Ayling. It is not a mistake he plans to repeat.

Possibly the finest

Paul Svensholm is a fan of Swedish design and products. He admires their combination of business efficiency and just about anything.

He should know. After 25 years as chief executive of Carlsberg, the Danish brewery group, Svensholm has been in the kind of stress many might say.

Svensholm, who is stepping down at the end of this year, was the man who led Carlsberg, possibly the subject he knows best. At a Copenhagen business lunch on Tuesday he turned that "we at Carlsberg" into "we at the world".

But, to 1978, Carlsberg annually brewed about 100,000 barrels of beer, of which a third was exported. Today, the figure is 320,000 barrels, 80 per cent of it is drunk outside Denmark. In a quarter of a century Svensholm has thus steered Carlsberg from being a small, if well-known, brewery to being, he says, the eighth largest in the world.

And at a time when business discipline is held to go hand in glove with shareholder pressure, Svensholm is very happy not to have to worry

about share prices. For Carlsberg is owned by a foundation, whose statutes rule that it must always own at least 51 per cent of the stock. Big, hostile takeovers, are not on the agenda, and a good thing too says Svensholm - his management can concentrate more on long-term objectives. It would be a bold analyst who denied that Carlsberg has been badly served by its statutes.

As for management theories, Svensholm has seen dozens of them - "For the most part useless" - come and go.

Squeeze the pore

To wrench an old adage - when Japan gets those cleansers, the rest of the world starts inspecting its pores.

Having tried Chinese seaweed to cut their calories, Japanese women are now nursing their noses with new peel-off "cosmetic pads", the country's latest beauty fad.

The demand for nose-pore cleansers is unexpectedly strong, says Kao, Japan's largest toiletry company. Sales in the local nose pack market are expected to more than double this year 1996's ¥5bn. Even Kao is staggered by this growth, it twice what was forecast.

Kao's new cleanser, the product of 20 years' research, comes in the form of a sticky

tape, which when applied to the nose unclogs the pores. Traditional applications - such as mud and gel packs - apparently did not entirely unclog nasal pores. Kao says that what attracts buyers to its tape "is that you can actually see the grime from your pores stuck onto the tape."

Will this new craze prove long-lived? The outlook isn't exactly promising. In Japan, at any one time about 80 per cent of cosmetics on sale are newly introduced products.

"It could easily, well, nose-dive."

Costly peanuts

Want to party with Arnold Schwarzenegger? Perhaps something a little more constructive. Like helping former President Jimmy Carter and wife Rosalynn build a home for a low-income family high up in the Appalachians.

Well, check out your frequent-flyer account with US carrier Northwest and turn up on September 27 at Sotheby's New York for their DreamPerks auction, said to be the first accepting air miles.

The event is in aid of Habitat for Humanity International, which rebuilds homes in poor communities. Northwest will donate proceeds raised from anyone ready to pay 5 cents

apiece to buy extra air miles before the auction.

There are 34 lots coming under the hammer of auctioneer David Sedden, ranging from the chance to carry the hammer and nails for Carter (auction estimate 300,000 air miles) to a night on the tiles with Arnie (a rather puny 200,000 miles). Alternatively, you can play with the Harlem Globetrotters basketball stars, or even board a jet fighter for a dogfight over California - no flying experience required.

The only party poopers appear to be Sotheby's. They will get a fee from Northwest and an unspecified commission on the sale - none of it going to charity. Perhaps some gentle Schwarzenegger persuasion might change their mind.

Tell me another

Good to find a machine with manners. In the US recently Observer tried using an internationally-recognised credit card to get some cash from an ATM. Shove in the card, tap the PIN number, and hey presto! Out comes... nothing but the following message: "Hi! We haven't heard from you for a while. So just for your own protection we are not proceeding with this transaction. Please consult your bank."

Only in America.

Financial Times

100 years ago

The Secret of Civilization At the Liverpool meeting of the British Association last night, Dr. William Newton read a short paper on "Nitrate", in which the nature of the fertiliser and the methods of its extraction were described. The particulars given were more or less elementary and familiar, but there is one sentence which really must be quoted as throwing an entirely new light on the subject: "The knowledge of the utilisation of nitrate in the manufacture of explosives is the power behind civilisation which is for ever a guarantee that civilised States shall never again go down before a horde of barbarians, as did the Roman Empire under the Goths and Huns." It is rather startling to discover that our boasted civilisation is based upon nitrate of soda.

50 years ago

Franco-Argentine Pact Good news in the international field has a scarcity value nowadays. For that reason 17th September, 1946, deserves long to be remembered as the date of two welcome events: the conclusion of financial and trade agreements with the Argentine and France. Both are characterised by the same spirit of give-and-take after prolonged hard bargaining.

IN THIS SURVEY

Building blocks of the revolution

The image contains three black and white photographs arranged horizontally. The leftmost photo shows a worker in a hard hat and safety gear operating a piece of machinery, possibly a pump or generator, in an industrial setting. The middle photo shows a worker in a hard hat and safety gear working on a large, cylindrical object, possibly a tank or pipe, in an industrial setting. The rightmost photo shows a worker in a hard hat and safety gear working on a large, cylindrical object, possibly a tank or pipe, in an industrial setting.

* The BT/MCI Global Communications Report 1996/97

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■ **Intelligent networks:** by Philip Manchester

Linking telecoms with digital networks can give suppliers a competitive edge

Booz, Allen & Hamilton also puts the current global market for intelligent networks at \$8 billion. The demand is particularly high for applications that can improve customer service and maintain competitive

users, while the traffic volumes will not be as high as



"On top of that you might

some tough programming problems.

**Telephone fraud
can be detected
at an early stage
by using new
billing software.**

■ Call centres: by M



ROGER
REALE

Few mobile phone customers would object to having their bill analysed if it allows the phone company

ne line



More and more companies are contracting out their telephone sales and support services

"Distribution is more advanced in Japan because we were setting up on a green-field site," says David Donaldson, senior account manager at Decision Com-

Over the century it moved from distribution via department stores to selling via franchises and then on to direct mail, backed up by extensive advertising and a

■ D. Day-400: the legislative
before the liberalisation of t

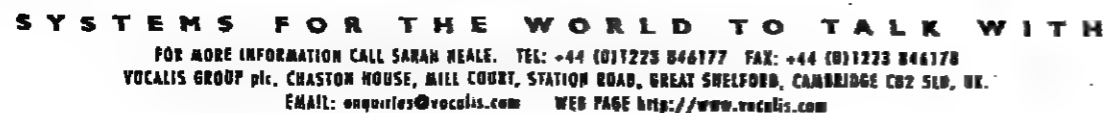
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Dual Tone Multi Frequency, the international standard format that identifies the tones generated by a

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**Cyberspace:
Advantage Europe?**

■ D. Day-400: the legislative projects underlying 400 days before the liberalisation of telephony in Europe

■ Digital initiatives for Europe: R&D policies, Trans-European networks, Europe and the Internet...

■ Cyber-Europe: Growth, employment and productivity

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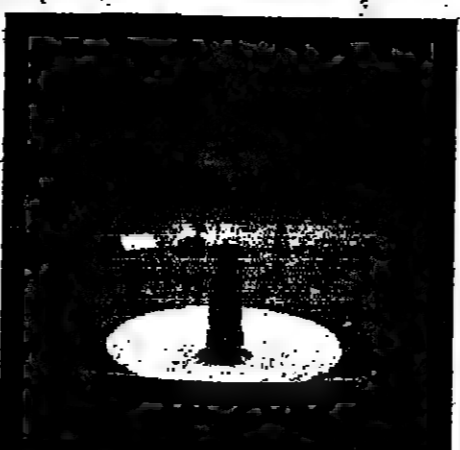
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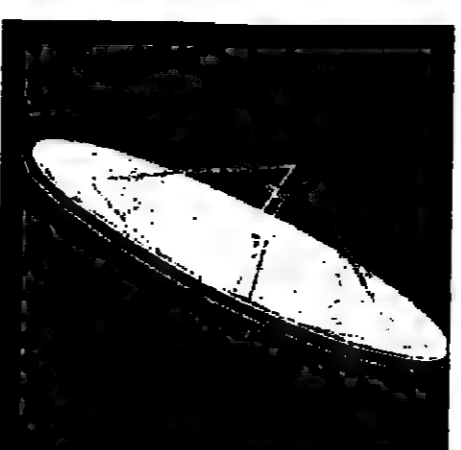
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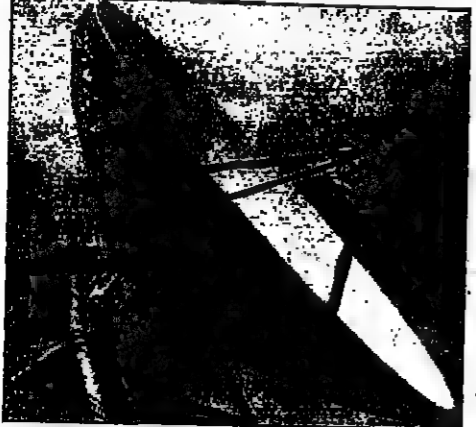
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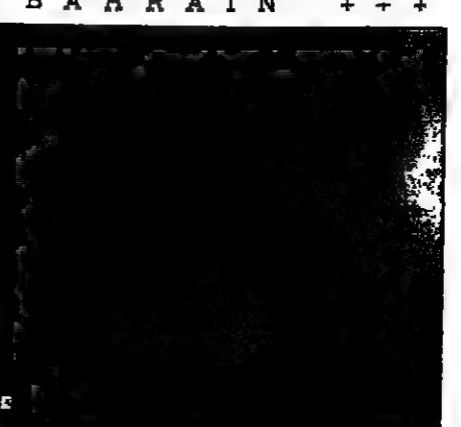
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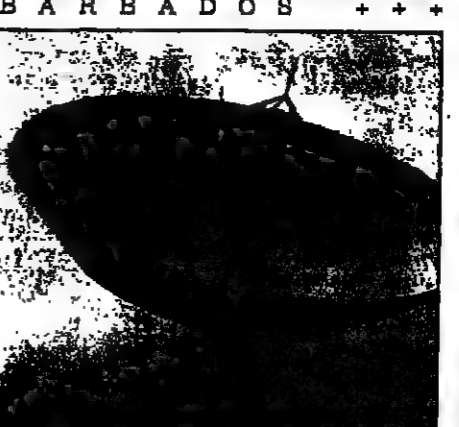
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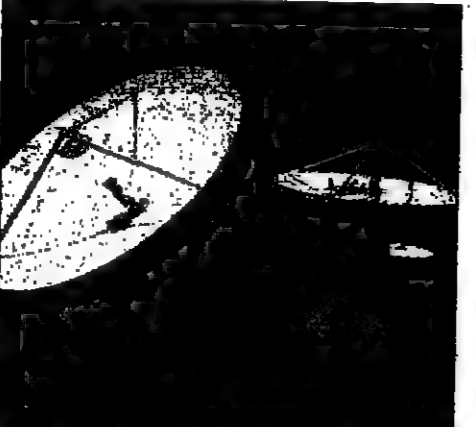
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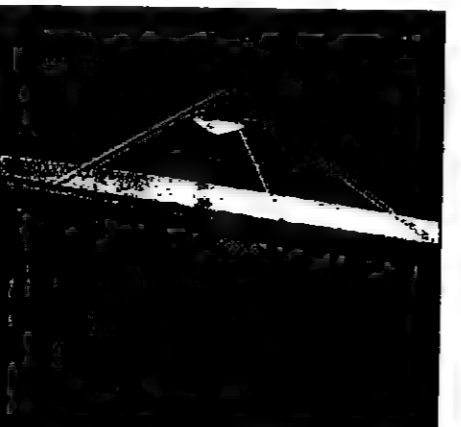
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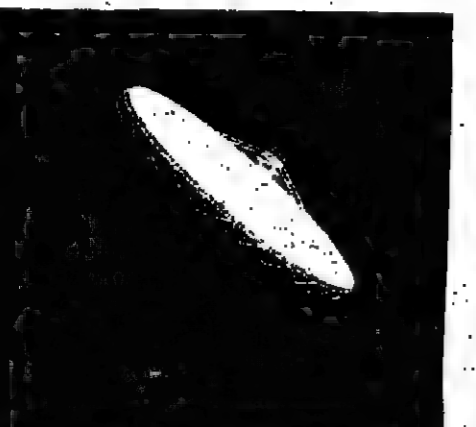
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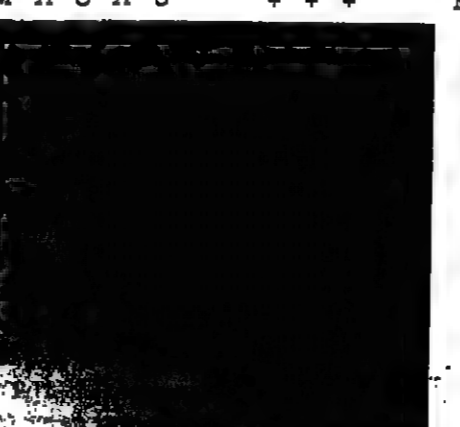
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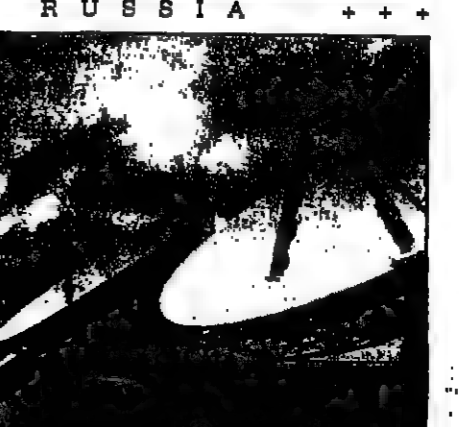
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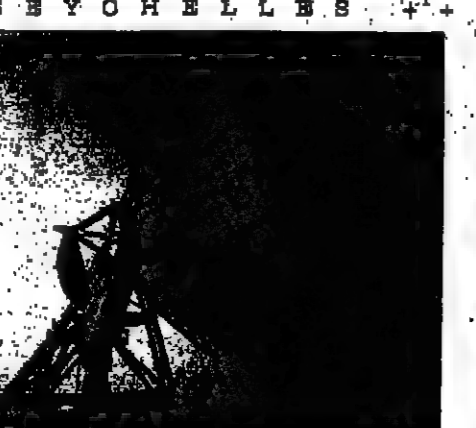
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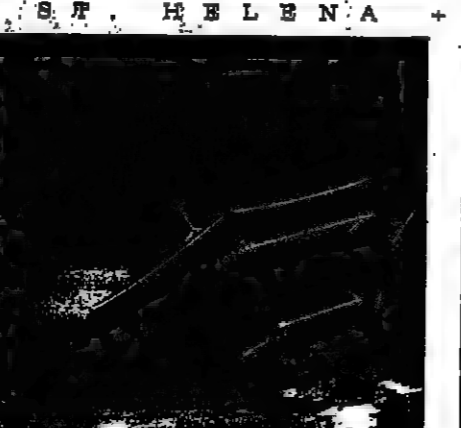
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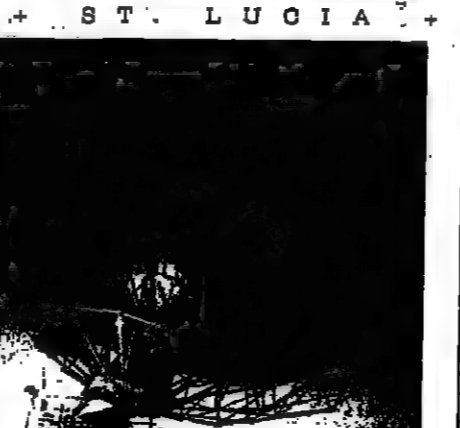
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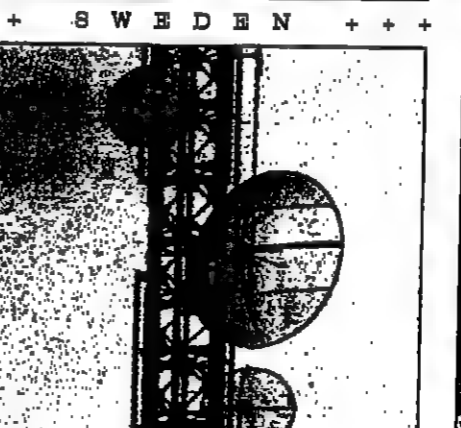
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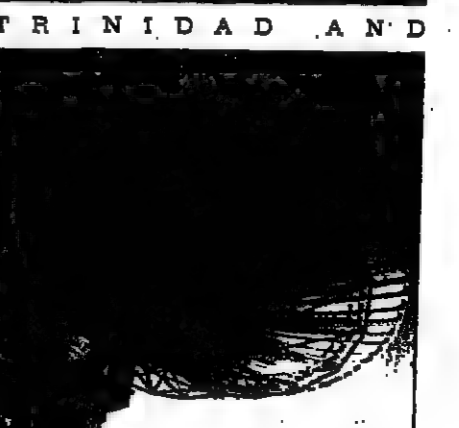
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16 INTERNATIONAL TELECOMMUNICATIONS

■ Internet telephony: by Paul Taylor

Cyberspace threat not taken lightly

While calls on the Internet remain difficult, they are getting closer to mainstream usage

Less than 12 months ago most traditional telecoms carriers dismissed the threat of Internet telephony - making voice telephone calls over the Internet because of the poor speech quality, lack of standards and inconvenience of making calls over the Internet.

Most industry analysts and many of those promoting Internet telephony, still concede that voice communication over the Internet is not going to put the telephone companies out of business overnight. But several recent developments including dramatic improvements in Internet telephony software packages, mean that the threat posed by Internet telephony is being taken more seriously by traditional voice carriers.

Even before these advances, the prospect of cheap, even free, long-distance calls - excluding the cost of Internet access - lured hundreds of thousands of personal computer users to explore Internet telephony. An estimated 500,000 people have tried out some of the more than a dozen Internet telephony software packages enabling Internet users to speak to each other via the global computer network.

These users have had to put up with the many limitations of first generation Internet software that make a voice call over the Internet far more tricky than picking up the phone, and the results rarely as satisfactory.

The biggest problem with using early Internet phone software has been that both parties had to be logged on to the Internet to connect the call. Generally those with ordinary dial-up connections to the Internet could only make calls at pre-

arranged times.

A second drawback has been the lack of standards. Different programs use different signal compression schemes and connection protocols so both parties needed to be using the same software, or programs using the same compression and connection methods, in order to communicate.

Another difficulty for users with dial-up access to the Internet, including most home computer users, has been that in order to link two computers via the Internet, it is necessary to know the Internet "address" of each computer. Unlike an e-mail address, which identifies a user, the address of a computer on the Internet - known as an IP address - is not always the same. In particular, many Internet access services assign new IP addresses to users each time they dial into the service.

Most Internet calls are therefore connected using a third computer, or server, that acts like a telephone exchange. The server matches names, rather than computer addresses, of registered users.

Finally, the quality of most Internet voice conversations is often poor and signal delays are almost inevitable in conversations because of the way data is transmitted across it in "packets" which are assembled and examined along the route by dozens of other computers and re-assembled at their destination.

These and other limitations meant that early Internet telephony has only appealed to the technophiles and to those such as university students in the US and new immigrants or expatriate workers who are far away from home. Indeed many people, including Bill Schuster, chairman of PSI-Net, one of the world's largest Internet service providers, believes Internet telephony will remain a niche product appealing to only a relatively small per-

centage of users.

Similarly, Forrester Research, the US-based technology consultancy, argued in a recent report that "while anything free is sure to gain a lot of attention, today's Internet telephony is just a hobby product like CB radio".

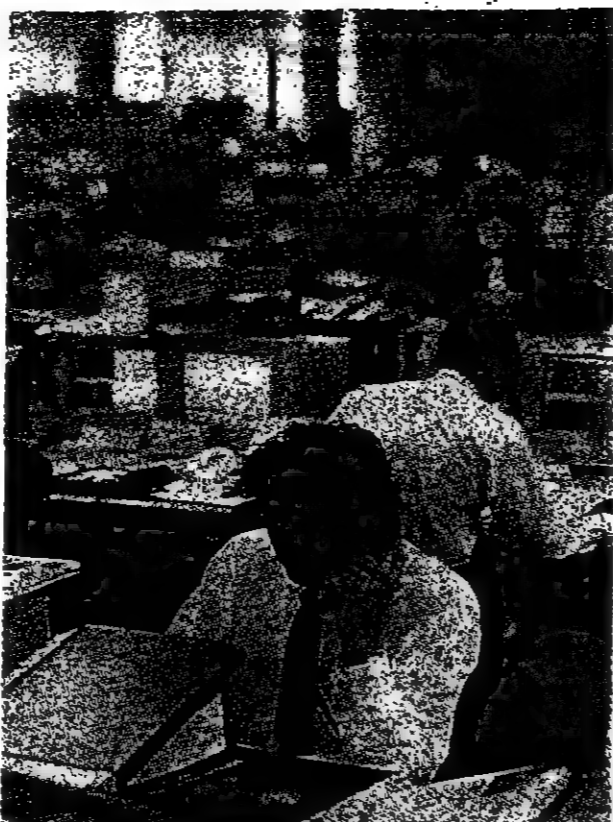
Not everyone agrees. And a number of recent developments could help move second generation Internet telephony products into the mainstream.

● Netscape Communications, the main supplier of Internet browser software, and Microsoft, the world's largest software group, have built telephony functions into their latest browsers. Netscape has bundled its "Cool Talk" conferencing facility into Navigator Web 3.0.

● VocalTec and IDT, two of the leading Internet telephony software product suppliers, have unveiled second generation products boasting many new features and improvements. For example VocalTec's Internet Phone for Windows 95 adds voice mail, caller identification and call waiting features to its software while IDT's Net2Phone product enables Internet users to call any telephone in the world from an ordinary PC for a fraction of the normal cost.

Net2Phone allows voice data to be carried over the Internet until it reaches IDT's US-based exchange where it is converted into a conventional telephone call ready to be received by any phone in the world. IDT charges 10 cents a minute for a call to anywhere in the US compared with the average \$2-a-minute charged by international carriers.

Meanwhile, VocalTec launched a service called the Internet Telephone Gateway Server last month which goes a step further by enabling every telephone user, regardless of whether they own a PC or a special VocalTec Internet phone, to make and receive phone



"Hello, is that cyberspace?" A number of recent dramatic improvements to voice made across the Internet have made this form of telephony a more viable prospect

calls over the Internet.

● Microsoft and Intel, the US chip-maker, have teamed up to develop Internet telephony standards. In March more than 100 other companies including Cisco and Sprint agreed to standardise voice, video and data integration into the World Wide Web bringing the prospect of true inter-operability closer.

Meanwhile, despite its limitations, Internet telephony's growth has prompted concerns among some US companies. In March, the American Carriers Telecommunications Association, which represents 180 long-distance telephone companies serving mostly small businesses, urged the Federal Communications Commission to regulate Internet telephone software suppliers as if they were telephone companies.

The association argues that Internet telephone software companies are competing unfairly in the long-distance market because they are not subject

to the same FCC regulations that govern traditional long-distance carriers.

However, the deep divisions within the industry are also emerging. For example, the largest US telephone companies including AT&T, MCI and Sprint have distanced themselves from the ACTA's action because they see the development of Internet telephony as a potential business opportunity.

However, as analysts at Nikko Europe noted in a recent report on the impact of the Internet on telecoms company earnings streams, Internet telephony highlights the threat to traditional voice telephony pricing models based on distance and "the question as to whether telcos should counter this threat by acquiring Internet access companies".

At the very least many analysts believe the advent of Internet telephony will accelerate the pace of call price reduction, for business as well as individual users.

PROFILE Alcatel

A stronger mobile connection

After a year of intense activity chairman Serge Tchuruk's plan may be working

It is now almost a year since shares in Alcatel Alsthom plunged more than 12.5 per cent, following the announcement that the then ailing French giant of the telecoms equipment sector had suffered a first-half loss and needed restructuring to reverse its decline.

The subsequent 12 months have been tumultuous by any standard. The Paris-based company has:

- reported the largest full-year loss in France's corporate history;
- embarked on a root-and-branch reorganisation to cut costs, involving the centralisation of purchasing, the restructuring of its telecoms activities along product lines rather than old national structures, and a severe pruning of the number of companies in the group;
- started discussions with the UK's General Electric Company about merging their GEC Alsthom power engineering and transport equipment joint venture with Framatome, the French state-controlled nuclear plant manufacturer;
- made public its interest in acquiring Thomson, France's defence and consumer electronics giant.

But, while the pace of change may have been unsettling both for investors and the company's nearly 200,000 staff, it looks like the action plan presided over by Serge Tchuruk, the group's chairman since mid-1995, may be starting to pay dividends.

Though group sales have continued to fall in the first half of 1996 to FF¥74.8bn

from FF¥73.5bn a year earlier, turnover in the telecoms sector was up to FF¥80.5bn from FF¥29.1bn. This reversed the downward trend of 1995 when telecoms sales dropped below the FF¥70bn mark. In a further encouraging sign, the group said its telecoms orders in the latest period were "particularly strong", advancing by more than 20 per cent.

While the profit implications of this upturn were not immediately apparent, the group confirmed earlier in the year it was looking to return to break-even in 1996. In 1995, the telecoms segment recorded a loss from operations before financing costs of FF¥3.3bn. This included a FF¥1.5bn non-recurring operating charge. The company said two-thirds of the decline stemmed from its network systems activities, with the market for network systems equipment marked by a severe drop in prices.

Part of Mr Tchuruk's strategy has been to diversify the group away from its core business of big public telephone exchanges - it remains the world's leading supplier of switching systems with an international market share, by its own estimate, of nearly 23 per cent - and into more profitable mobile phone and telecoms transmission equipment.

But as far as mobile is concerned, the company faces a challenge to keep pace with the industry leaders. Mr Tchuruk acknowledged earlier this year in an interview with Business Week that Alcatel would not be able to catch up with the likes of Ericsson and Motorola in the mobile sector. But he suggested the company could double its market share to 20 per cent "which is the average worldwide share of all our products".

The progress the company has made in the area has come to analysts' attention. "Alcatel has worked hard to redevelop the system and regain its reputation, effectively re-engineering its GSM systems and re-designing its handsets," said Morgan Stanley in a recent investment note. "We do not think Alcatel is too late to be a significant player in mobile communications."

To steer the group back to a good level of profitability by 1998, Alcatel's chairman has several other cards in his hand. The company retains a strong geographical presence in markets as different as France and China. Indeed, Mr Tchuruk has indicated that within a decade its China business would account for 10-12 per cent of global sales.

It is also expanding rapidly in other areas. In his address to this year's annual shareholders meeting in June, Mr Tchuruk singled out the acceleration of the company's presence in the US, saying sales of the group's telecoms subsidiary would pass \$1bn this year, "thanks to the success achieved in transmission networks, against all its worldwide competitors".

Meanwhile, the company has weathered storms arising both from the corruption scandal that last year forced the departure of Pierre Suard, Mr Tchuruk's predecessor as chairman, and a separate legal wrangle concerning allegations of overbilling. This damaged relations with France Telecom, its principal client. Mr Tchuruk said in June he was "pleased with the atmosphere of confidence that has now been re-established with France Telecom".

David Owen

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SDH: by George Black

System sets a high standard

SDH is becoming the industry norm as the networks catch on to its advantages

SDH (Synchronous Digital Hierarchy) has matured into a standard for high capacity transmission across most of the world.

Backed by the European Telecommunications Standards Institute (ETSI), the SDH infrastructure is being installed by network operators and large companies everywhere except in North America and Japan, where an offshoot of SDH known as Sonet is the standard.

Over the next five to 10 years SDH looks set to transform the telecoms industry by bringing very high reliability, resilience and flexibility to networks, as well as being able to handle much more traffic.

In the long term it should also reduce the costs and increase the profitability of the operators because networks will need less duplication and less maintenance.

"SDH is primarily about improving reliability," says Chris Lewis, principal analyst at Yankee Group Europe.

"If your road network is blocked up there is not much you can do about it, but if your telecommunications network is blocked up you can easily reconfigure it using SDH," says Dr Joseph Shapiro, corporate marketing vice-president for the SDH multiplexer manufacturer ECI Telecom.

For network operators, installing SDH is a necessary preliminary for supporting traffic which uses ATM (Asynchronous Transmission Mode), another emerging standard for high-speed networks. Together they can support the use of multimedia applications, mixing voice, video and data services.

SDH was designed to run at 155 megabits a second. This matches ATM in most cases, but SDH has already been boosted to 2.5 gigabits and is claimed to have the potential for 256 gigabits.



High capacity transmission works by optical fibre. SDH can cope with volumes of traffic better

It is rapidly replacing older equipment based on the Plesiosynchronous Digital Hierarchy (PDH) standard in national networks. PDH is less able than SDH to support ATM and lacks its reconfigurability.

Most operators believe SDH is superior in delivering interoperability of systems and can cope with fast-rising volumes of traffic better. Unlike SDH, PDH never attained the status of an international standard. SDH enables operators to manage networks from a central point. In the event of a failure it re-routes traffic automatically. It can be repaired quickly with software tools as it is remotely controlled.

Operators are installing it as fast as possible because it is potentially a competitive weapon, enabling them to provide better service and greater bandwidth. New operators, especially of mobile networks, are combining SDH fibre optic and radio systems to move into business more quickly.

Many operators have already installed SDH in their trunk routes and are

extending it to local branches and users' points of access. Large companies are also starting to use SDH, rebuilding their networks to improve communications between sites.

Network operators worldwide have been investing heavily in SDH. By the year 2000 fully SDH networks are likely to be widespread.

Worldwide, Australia has probably been the most enthusiastic in taking up SDH and has done this through the national operator, Telstra. In Europe, Germany has spent the most on installing SDH, mainly because Deutsche Telekom has rushed to buy the equipment while it is still a state monopoly. After privatisation it would probably not have been able to justify its expenditure in such a short time but would have had to phase it in over a 10 to 15-year period.

In the UK, Energis, the network operator by the National Grid electricity supply company, is the largest user, having implemented SDH throughout its network as a greenfield site.

Alistair Henderson, the firm's head of network strategy, says that SDH's reliability has enabled it to provide service level agreements that guarantee the availability of network services for its customers.

These are mainly users which depend on very high availability, such as the BBC, Mirror Group newspapers and Thomas Cook travel agency.

British Telecommunications and Mercury have also been moving towards adopting SDH. BT has already implemented it to boost the reliability of its services to banks.

France Télécom still has more old coaxial cable than BT and is heavily reliant on PDH, but the need to follow the rest of the world in adopting ATM may force it to speed up its adoption of SDH.

Beyond Europe, SDH has been successful because many countries follow European telecoms standards. East European governments, particularly the Czech Republic, seeking to modernise their infrastructures, are looking to SDH as the basis

for those programmes.

Likewise, the Chinese government is investing heavily in SDH as part of a bid to catch up with the industrialised nations in its communications. In the Middle East, Israel and Saudi Arabia are both firmly committed to using SDH.

As the demand side expands, the supply side may contract. Research and development costs have already far exceeded forecasts, partly because the manufacturers have had to shift their effort from hardware to software.

"Five years ago R&D on PDH was 90 per cent hardware. Today R&D on SDH is 70 to 80 per cent software," says Ian Taylor, a business manager for Alcatel Telecom, a leading SDH manufacturer.

With each enhancement to SDH, manufacturers need to add more to the hundreds of millions of pounds they have already invested. Some may well decide they cannot afford to go on alone, which may produce more mergers and partnerships.

Ericsson has to a great extent gone over to selling other manufacturers' products. Nortel (Northern Telecom) has decided to collaborate with former competitor DSC (Digital Switch Corporation).

Siemens, GPT (GEC-Plessey Telecom), in which Siemens has a controlling share) and Italtel have chosen to form an alliance to develop new SDH products.

Even Lucent Technologies (formerly belonging to AT&T) does not provide complete systems by itself but has enlisted partners such as the radio and satellite specialist Nera.

SDH and Sonet are not compatible within the same network, but SDH and Sonet networks should be fairly easy to connect. Bernie Jarvis, director of strategy for public networks at GPT, says that a limited amount of interworking between SDH and Sonet is already possible. This will increase steadily as operators and the International Telecommunications Union work on interoperability.

PROFILE Siemens

Armed with a powerful asset

One highly profitable asset - a digital switching system - is what drives the public telecoms division of Siemens, Germany's second largest industrial group, and one of the few German companies with world market leadership in a number of cutting-edge technologies. This asset cross-subsidises a variety of other activities in the same division.

In terms of public telecoms products, Siemens and its subsidiaries is among the world's top three producers along with Alcatel and Lucent.

It claims to be market leader in sub-segments such as narrow band technology - the networking technology used in ordinary telephony - where its EWSO digital system is its cash cow.

EWSO is used by 280 telecoms operators in 86 countries, with 110m connections. Most of these, about 82m, are inside Germany, followed by China and the US. Siemens' technology is also the market leader in eastern Europe.

Until the 1970s, Siemens telecoms was merely the in-house supplier of the Bundespost, the former German telephone monopoly. But from a rate of 40 per cent in 1979/80, the division's foreign market share should reach 70 per cent this year, and this is forecast to go to 80 per cent in three years.

In telecoms networks based on Synchronous Digital Hierarchy (SDH) - an international digital transmission standard introduced three years ago - Siemens claims to hold a market share of 33 per cent, ahead of Alcatel at 21 per cent.

As well as traditional narrow-band technology, the wide spectrum of

activities in the public telecoms division includes:

- Access networks, which are networks connecting the end-user and the telephone network;
- Broadband technology for the transmission of large amounts of data such as those used in multimedia;
- Transport networks, for transmission between switching stations;
- Intelligent networks, allowing telephone operators to offer special services such as freephones;
- Network management, offering administrative services;
- Network engineering, which provides turnkey solutions for complete telecoms systems;
- Cable; and
- Mobile networks.

In mobile networks Siemens once lagged behind the competition.

"Siemens has made mistakes in this business area," says one analyst, who points to mobile telephone stations as an area that the company was slow to develop. "They failed to bring a base station to market in time."

Siemens claims that its technology in mobile telecoms has made much progress since, and that one third of all users of the Global System for Mobile Communications (GSM) standard, the predominant digital standard in Europe, route their calls via Siemens' base stations.

The proliferation of telecoms services, and the demand for more custom-made services is also driving sales of an increasing number of products and services.

Siemens' Telecoms Management Network and the Intelligent Networks units supply technologies allowing phone companies to offer customised services, such as

freephones, universal numbers (where national calls are charged at special rates), virtual private networks and internal corporate communication systems, which use public networks but behave as though they were private.

Increasing use of the Internet is also leading to new technologies. Siemens is developing a telephony system allowing users to communicate via the Internet, a system already on the market, but with quality as yet not comparable to that of standard voice telephony.

Another division in this complex web of businesses is the cable manufacturing. Siemens is Germany's only representative in this area.

From its conservative days in the 1970s and 1980s, Siemens now has a solid portfolio of electrical and electro-mechanical divisions, and is at last promising improved earnings.

But despite its technological potential, the public telecoms business is not a star financial performer for Siemens, although its performance has been ahead of that of Alcatel, its main European competitor in many segments of the market. Triggered by weakness in domestic business, the public telecoms division's turnover was only DM10.4bn to end-September 1995, a fall of 19 per cent from the previous year.

Turnover has since recovered and profitability is rising. Analysts forecast that the division's profit contribution of DM266m last year may go up to DM280m this year, and then to DM300m in 1997.

Wolfgang Münchau

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18 INTERNATIONAL TELECOMMUNICATIONS: THE MOBILE SECTOR

■ GSM/CDMA: by Tom Foremski

Lines are drawn in phone wars

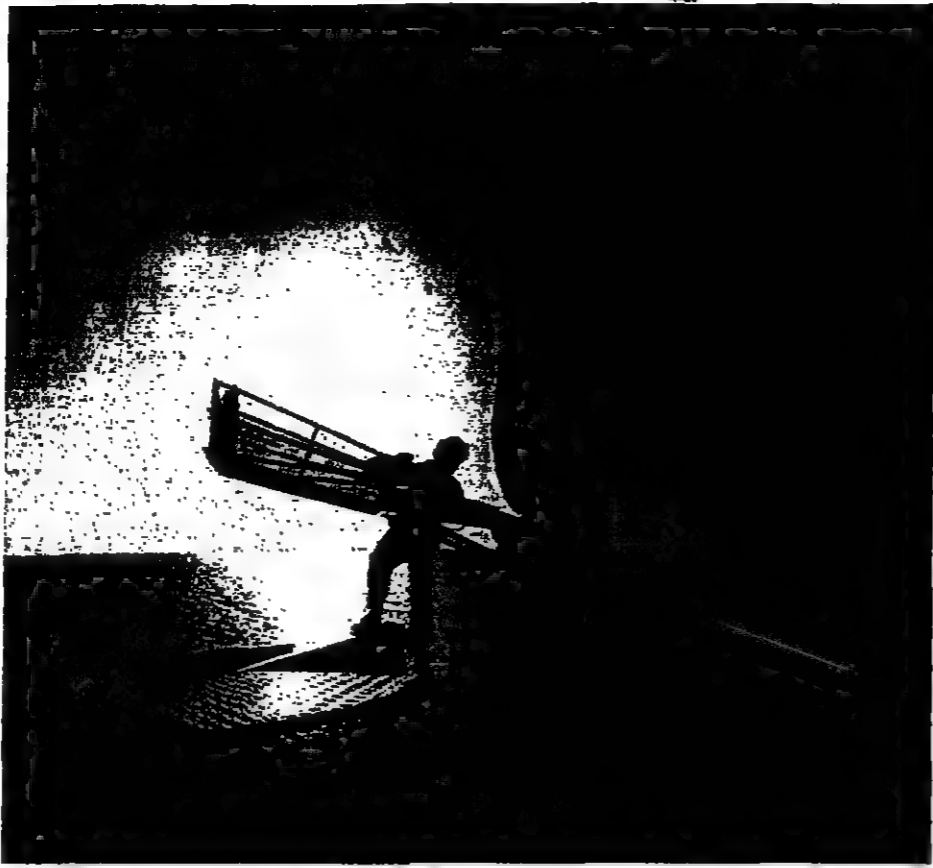
Telecoms companies must choose which digital system to use

When it comes to discussion of which digital cellular phone technology is best, the debate quickly develops the flavour of a religious war. Zealots on opposing sides deride each other and try to justify their own huge investments in their choice of technology.

Over the next few years, wireless telecoms companies around the world will choose between two of the main digital wireless cellular phone technologies.

The contest is between the US-developed Code Division Multiple Access (CDMA) technology and the European-developed Global System for Mobile Communications (GSM). Both technologies aim to replace the analogue-based cellular phone systems with a digital service that can deliver data as well as voice and offer more capacity for phone calls and users.

CDMA was developed by California-based Qualcomm and offers several advantages over GSM. CDMA, however, has yet to prove its claims of superior performance and capabilities, while GSM is an established technology with a large base of equipment providers. CDMA equipment is still difficult to find and the technology has yet to make a



Battle of the airwaves: the competition between GSM and CDMA will be decided in the marketplace

successful transition from the lab to the real world.

For many companies investing hundreds of millions of dollars in setting up digital phone networks, the issue is one of betting a large amount of money on a potentially superior technology or taking their place in

the market quickly with an established technology.

Many US companies are facing this problem in their bid to set up regional and national personal communications service (PCS) networks. After paying the US government more than \$10bn for PCS network licences, US companies are faced with the difficult decision of reaching the market first with a GSM service or betting that CDMA will work as advertised and help them eventually to carry larger numbers of users.

Qualcomm originally claimed that CDMA would offer as much as 40 times the capacity of analogue cellular systems, while GSM has about three to four times more capacity than analogue systems.

But over the past few years, the CDMA claims have been revised and data collected from field trials indicate that CDMA could

offer about six to seven times the capacity of analogue cellular. This would narrow the gap between CDMA and GSM.

CDMA offers the US PCS industry the best investment for the long term because of its higher capacity, better sound quality and lower power consumption, but it could take two years to deploy commercial CDMA-based PCS systems. That is a long time to keep millions of dollars tied up for PCS licences without having any revenue coming in.

The GSM-based PCS system is called PCS-1900 in the US. This system allows companies to move into the market more quickly, possibly within a year, and thus start generating revenues and building market share before their competitors.

GSM also has the advantage of communications equipment that is cheaper than CDMA's because of

higher manufacturing volumes.

In contrast, CDMA equipment is still in its first generation. It will take some time for it to develop the same economies of scale.

The development of CDMA chips for cellular phones has also lagged, while there is much more support for GSM in terms of chips, software and operating experience.

US market research firm Giga Information estimated the chip content of a CDMA phone cost \$90 at the end of 1995. This compared with about \$60 for GSM phones. CDMA chip prices are certain to drop over the next few years, but as will the price of GSM chips. Giga believes that CDMA chips will still cost more than GSM chips.

Some of the largest US companies have chosen CDMA for their PCS networks. They represent about half the potential market when measured by possible end-users. The rest have chosen GSM or a variation of GSM.

The first GSM network in the US was activated in the Washington DC area in November 1995. Several other GSM networks are now online.

The California-based Pacific Bell Mobile has a GSM network in San Diego in time for the recent Republican party convention. This gave the company a good publicity opportunity when it offered Republican delegates free phones.

Other US companies are betting their money on CDMA. GTE of the US has begun a customer trial in Austin, Texas, and plans to roll out a commercial CDMA network in San Jose, California, and other markets in 1997.

"CDMA is the digital standard that will ultimately best support our customers with future wireless applications," says Ron Grawert, executive vice-president of operations for GTE's wireless business.

He listed CDMA's advantages over other digital standards as improved, state-free voice transmission, greater conversation privacy, longer battery life, and a decreased possibility for fraudulent use of the cellular system.

He added that CDMA also allowed more customers to use their cellular phones at the same time.

In other countries telecoms companies are facing the same issues as their US counterparts.

CDMA was given a boost when the Japanese government recommended that firms in Japan should use CDMA.

GSM supporters say that the recommendation is a political one rather than one based on the technology's merits. They say that the Japanese government is seeking to encourage use of US technology to overcome accusations that its markets are closed to foreign companies.

Other countries in support of CDMA are Singapore, Hong Kong, South Korea and Brazil.

GSM has been the technology of choice in many developing countries where GSM networks can be quickly established and are supplanting older telephone networks. GSM has been chosen over CDMA in Poland, China, Slovakia and India.

The battle between GSM and CDMA will ultimately be decided in the marketplace. Unfortunately, the cellular phone user will be the loser because the two technologies are not incompatible.

Digital wireless phone users will find their phones unusable when travelling through certain areas. And because GSM in the US uses different radio frequencies from those in Europe, further incompatibilities will inconvenience users.



The number of cellular subscribers in the world is still growing at 50 per cent a year

■ Mobile suppliers: by Hugh Carnegie

Crackling with confidence

The industry is convinced there is much more growth to come worldwide

Like the crackles and dropped signals that often disrupt a mobile telephone call, the big equipment suppliers to the world's fast-growing mobile networks have suffered alarming disruptions over the past year.

A hiccup in demand in the US - the world's biggest single mobile market - fears of a slowdown in worldwide growth, and falling prices, prompted by growing competition, have all conspired to hit profit margins and share prices - sometimes spectacularly.

But despite these upsets, the industry remains confident that there is still much more growth to come in both building mobile network infrastructure and in the sale of handsets. Latest estimates show that the number of mobile subscribers in the world, which has this year passed 100m, is still growing at an annual rate of some 50 per cent.

Penetration rates have reached as high as 25 per cent of the population in Scandinavia. But even in countries like the US and the UK, where mobile growth has been relatively fast, penetration rates remain below 20 per cent. They are much lower than that in other potentially big markets such as Japan, France and Germany. Estimates that there will be more than 300m subscribers worldwide in the year 2000 are regarded as quite conservative within the industry.

The supply of mobile equipment, from the switches and radio base stations that underpin the networks to the individual telephone handsets, is still dominated by three companies: Ericsson of Sweden, Motorola of the US and Finland's Nokia. Between them, they hold as much as two thirds of the world's markets.

Ericsson, which claims 40 per cent of the world's mobile subscribers are hooked up to its systems, is the leader in infrastructure supply. Motorola leads the sale of handsets, followed by Nokia. But all three supply both infrastructure and handset equipment.

The dominance of these three is not universal, however. In North America, Lucent, the former AT&T equipment supply division, and Canada's Northern Telecom are big infrastructure suppliers. In Europe, Germany's Siemens and Alcatel of France are also fighting for market share. In handsets the three leaders face competition from a growing number of companies, including Philips from the Netherlands and Japan's

NEC and Panasonic.

The press of competition and uneven developments in different markets have jolted Ericsson, Motorola and Nokia over the past year. A key catalyst to a sharp fall in their share prices at the end of 1995 - Nokia's market value was cut in half between September and the turn of the year - was a slowdown in growth in the US, which accounts for 25 per cent of the world's mobile market.

Demand slowed as US operators moved to introduce new digital networks: growth in the older generation analogue networks stalled in anticipation, but the new networks were not yet on stream. Compounding the problem for the European suppliers was the decision by several of the biggest operators of digital networks to choose systems based on an operating technology called CDMA which Ericsson and Nokia do not supply.

At the same time, growing competition led to tumbling prices for handsets - by as much as 25 per cent last year, slicing profit margins.

The hiatus in the US hit Motorola hard, contributing to a weakening of group profits that has continued this year. Nokia, with its high exposure to the handset market, was also hit. Nokia's problems were compounded by internal foul-ups in its production. Ironically, these were in part caused by the difficulty in keeping pace with the sheer rate of growth it had experienced in

the previous three years. In the first half of the this year, Nokia's profits crashed from FM3bn to FM1.13bn.

Ericsson, with its proportionately much greater reliance on the more stable infrastructure business, has not suffered such swings. It posted a 31 per cent rise in profits in the first half of this year and struck a confident note about the remainder of 1996.

Part of Ericsson's confidence is explained by the belief that barriers to entry to the infrastructure business should mean that margins will not fall as precipitately as they have for handsets.

Ericsson clearly will not sweep the board in the new generation of networks in the US now that key operators have opted for CDMA. But its powerful position in the European digital standard GSM and GSM-related systems - which are the fastest growing network choices outside the US - gives it great strength. Likewise, Nokia intends to cash in on its similar GSM strength in infrastructure, as more networks are established worldwide and - importantly - operators seek to build out existing networks to expand capacity and coverage.

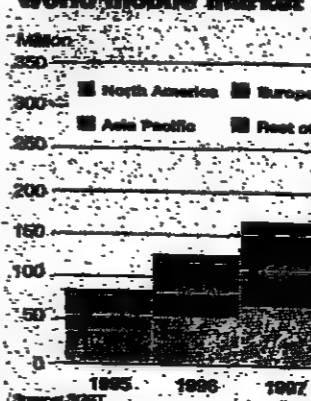
In handsets, the pressure is likely to be greater on the established big groups. They have an advantage in having big volumes to enable them to withstand falling margins. But the smaller competitors are likely to be willing to sacrifice profits to build up the market share that will give them critical volume mass later.

Much greater market segmentation between limited function, cheaper handsets, and multi-function, expensive phones is already beginning to develop, with a growing emphasis on styling and marketing. The awkward challenge to the existing dominant groups is to win such a battle against companies such as Philips and Panasonic which have much greater experience in consumer electronics.

Comparison of world markets



World mobile market



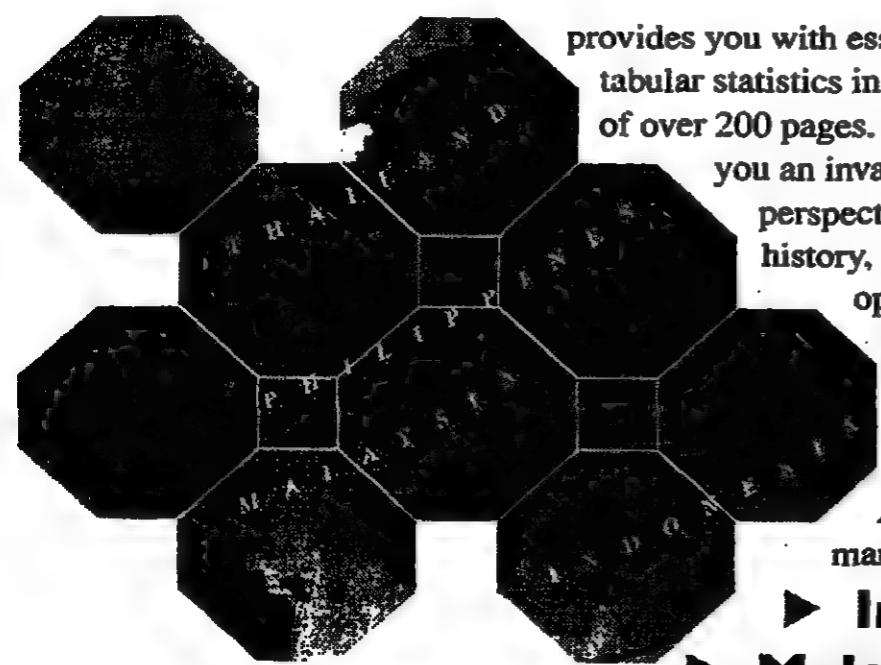
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FINANCIAL TIMES

Dear Reader,

The Financial Times publishes country, industry and financial surveys (ie. separate editorial features) several times per week. In order to help ensure that these meet your needs as a reader, we have commissioned Framework, an independent market research company, to conduct a research project.

Please could you help us by taking a few minutes to complete this questionnaire, fold, and seal return it to the research company using the International Business Reply Service - you do not need a stamp or an envelope.

The research results will be used by our editorial and marketing staff. Your reply will be treated in the strictest confidence as guaranteed by the code of conduct of ESOMAR (the European Society for Opinion and Marketing Research). We do not need you to provide your name, address or company details.

If you have any further comments about this, or other FT surveys, please do not hesitate to write to me directly.

Thank you for your help.

Yours sincerely,

Rhys David

RHYS DAVID
SURVEYS EDITOR

YOUR READERSHIP OF THE FINANCIAL TIMES

1 (1-6)

1. How often do you usually read or look at:
a. Monday to Friday issues of the Financial Times?
b. Saturday issues of the Financial Times?

	Monday to Friday (7)	Saturday (8)
Very frequently - at least 4 issues out of 5	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Quite often - 2 or 3 issues out of 5	<input type="checkbox"/> 2	<input type="checkbox"/> 2
Less often	<input type="checkbox"/> 3	<input type="checkbox"/> 3
Never	<input type="checkbox"/> 4	<input type="checkbox"/> 4

2. Where do you usually read the Financial Times? (please tick all that apply)

	Monday to Friday (9)	Saturday (10)
At work	<input type="checkbox"/> 1	<input type="checkbox"/> 1
At home	<input type="checkbox"/> 2	<input type="checkbox"/> 2
While travelling	<input type="checkbox"/> 3	<input type="checkbox"/> 3
Elsewhere	<input type="checkbox"/> 4	<input type="checkbox"/> 4

3. The Financial Times publishes surveys most days each week, either within the main body of the newspaper, or as separate sections. On average, assuming five FT surveys are published per week, how many do you read or look at (either on the day they are published or at a later date)?

none	less than 1	1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

YOUR READERSHIP OF THIS FT SURVEY

The following questions relate to this International Telecommunications survey.

4. How much of the International Telecommunications survey did you read/do you expect to have read once you have finished with it?

All	Almost all	About half	Less than half	Did not read it - skip to Q11
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

5. Apart from yourself, how many other people will read your copy of this survey?

None	1	2	3-4	5-9	10+	don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 6a. What will you do with this survey once you have finished reading it?

Keep the copy or selected pages for further reference	Pass it on to a colleague	Throw it away - skip to Q7
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

- 6b. If this survey is kept for future reference, where will it be kept?

In the company library/another central location	In your own office	In another office/department	At home	Elsewhere
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

7. A number of statements are written below which might apply to the International Telecommunications survey. Please indicate how strongly you agree or disagree with each statement.

	Agree strongly	Agree slightly	Disagree slightly	Disagree strongly
It is well written	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
It contains information which is new to me	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
It is useful to me in my work	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
It is well laid out and presented	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
It is authoritative and credible	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
It is independent and unbiased	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
It is up to date	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

8. Overall, how would you rate the International Telecommunications survey?

Excellent	Very Good	Fair	Poor
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

9. Are there any other comments you have about this survey? (please write in)

	(24)
	(25)
	(26)

10. Which, if any, of the advertisers listed below do you remember seeing in this survey?

Deutsche Telekom	<input type="checkbox"/> 1	Lucent Technologies	<input type="checkbox"/> 7
Cable & Wireless	<input type="checkbox"/> 2	Siemens Nixdorf	<input type="checkbox"/> 8
Nortel	<input type="checkbox"/> 3	Telecom Italia Mobile (TIM)	<input type="checkbox"/> 9
Singapore Telecom	<input type="checkbox"/> 4	Locate in Scotland	<input type="checkbox"/> 10
British Telecom (BT)	<input type="checkbox"/> 5	Philips	<input type="checkbox"/> 11
Ricoh	<input type="checkbox"/> 6		

ABOUT FT SURVEYS IN GENERAL

- 11a. Which, if any, of the following surveys published recently by the Financial Times did you read or look at?

Aerospace	<input type="checkbox"/> 1
Kansai	<input type="checkbox"/> 2
Reinsurance	<input type="checkbox"/> 3
Infrastructure in Latin America	<input type="checkbox"/> 4
Power in Asia	<input type="checkbox"/> 5
Europe's Most Respected Companies	<input type="checkbox"/> 6
Philippines	<input type="checkbox"/> 7
None of these	<input type="checkbox"/> 8

- 11b. Which, if any, of the Telecommunication surveys published earlier this year, did you read or look at?

UK Telecommunications Market (March)	<input type="checkbox"/> 1
Asia/Pacific Telecommunications (April)	<input type="checkbox"/> 2
Telecommunications in Business (June)	<input type="checkbox"/> 3
None of these	<input type="checkbox"/> 4

12. A number of statements are written below which might apply, in general, to the range of surveys produced by the Financial Times. Please indicate how strongly you agree or disagree with each one.

	Agree strongly	Agree slightly	Disagree slightly	Disagree strongly
FT surveys are well written	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
They are useful to me in my work	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
They cover a wide range of topics	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
They provide information I cannot find elsewhere/would not see otherwise	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
They are better than those produced by other publications	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
The writing is independent and unbiased	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
They help me to keep informed about new trends and developments	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
They are accurate and up to date	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

13. In general, how would you rate FT surveys?

Excellent	Very Good	Fair	Poor
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

14. In which subjects or geographical areas are you particularly interested? (please include any which are not currently covered by the Financial Times)

	(38)
	(40)
	(41)

15. In which, if any, of the following ways do you use FT surveys? (please tick all that apply)

As a briefing before visiting the country or region featured	<input type="checkbox"/> 1
As a part of your background research on a particular project	<input type="checkbox"/> 2
To keep you up to date with a particular industry, country or region	<input type="checkbox"/> 3
To incorporate into presentations, reports or other documents	<input type="checkbox"/> 4
To show clients, suppliers or other contacts	<input type="checkbox"/> 5
To keep you generally informed	<input type="checkbox"/> 6
In other ways (please write in)	<input type="checkbox"/> 7

16. How do you generally find out about forthcoming FT surveys?

I look at the Guide to the Week (in Monday's paper)	<input type="checkbox"/> 1
I see the advance notices in the paper	<input type="checkbox"/> 2
I receive an advance topic list from the Financial Times	<input type="checkbox"/> 3
I just come across them on the day of publication	<input type="checkbox"/> 4
Editorial contact	<input type="checkbox"/> 5
Advertising contact	<input type="checkbox"/> 6
PR contact	<input type="checkbox"/> 7
Other	<input type="checkbox"/> 8

17. In which of the following ways have you obtained copies of FT surveys? (please tick all that apply)

In your own or someone else's copy of the paper	<input type="checkbox"/> 1
Had it passed on to you by a colleague	<input type="checkbox"/> 2
In a library, archive or similar place	<input type="checkbox"/> 3
Via www.FT.com (the Financial Times on the Internet)	<input type="checkbox"/> 4
On computer disc	<input type="checkbox"/> 5
On microfiche	<input type="checkbox"/> 6
Via FT Profile	<input type="checkbox"/> 7
Purchased a back copy from the Financial Times	<input type="checkbox"/> 8

18. Have you ever contacted a company or organisation as a result of seeing an article or advertisement in an FT survey?

Yes - after reading an advertisement	<input type="checkbox"/> 1
Yes - after reading an article	<input type="checkbox"/> 2
No	<input type="checkbox"/> 3

19. If FT surveys were available electronically, in which of the following formats would you be interested?

Computer diskette	<input type="checkbox"/> 1
CD Rom	<input type="checkbox"/> 2
Via the Internet	<input type="checkbox"/> 3
None of these	<input type="checkbox"/> 4

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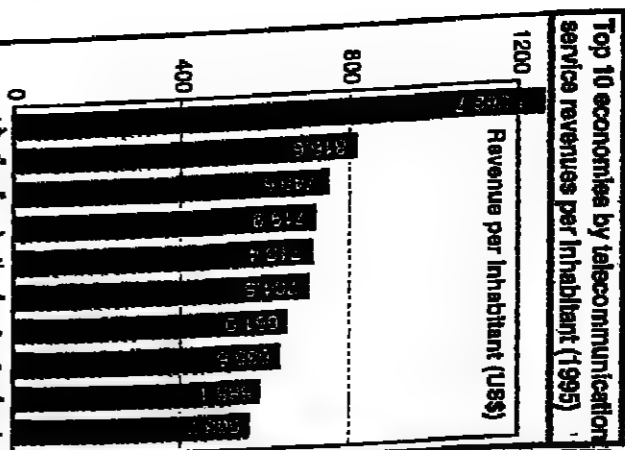
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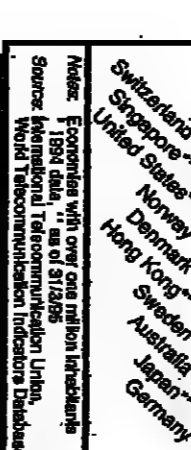
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Global sell-off gathers pace



Top 10 economies by telecommunications service revenues per inhabitant (1995)



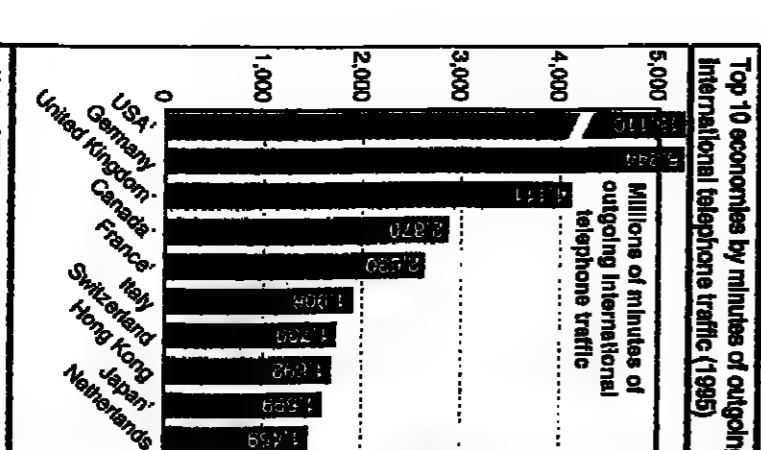
Notes: Economies with over one million inhabitants
1984 data, ** as of 31/12/85
Source: International Telecommunication Union,
World Telecommunication Indicators Database

Top 15 telecommunication operators by telecommunication service revenue

Telecom service revenues		Total	Change
		US\$ m	1984-85
Company (country)			
NTT (Japan) a		84,660	22.0%
AT&T (United States) b		47,477	0.5%
Deutsche Telekom (Germany)		40,151	17.4%
France Telecom (France)		29,615	15.3%
BT (United Kingdom) a		22,875	7.2%
Telecom Italia (Italy)		18,463	2.3%
Belstet (Belgium)		17,865	0.2%
GTE (United States)		17,384	0.1%
MCI (United States)		15,885	14.4%
Sprint (United States)		13,956	7.1%
Telefonica (Spain)		13,430	-2.5%
Amstel (Netherlands)		13,425	6.5%
Nynex (United States)		13,407	0.9%
SBC (United States)		12,670	12.6%
US West (United States)		11,746	7.2%
TCP 16		377,132	11.2%

Notes: a) Year ending 31 March 1998. b) AT&T telecommunication services revenue. c) Not including revenues from overseas subsidiaries.

Source: International Telecommunication Union, Public Telephony Operations Database.



Economy	Millions of minutes of outgoing international telephone traffic (1988)
USA	4,910
Germany	4,220
United Kingdom	4,110
Canada	3,710
France	2,280
Italy	1,670
Switzerland	1,400
Hong Kong	1,300
Japan	1,290
Netherlands	1,070

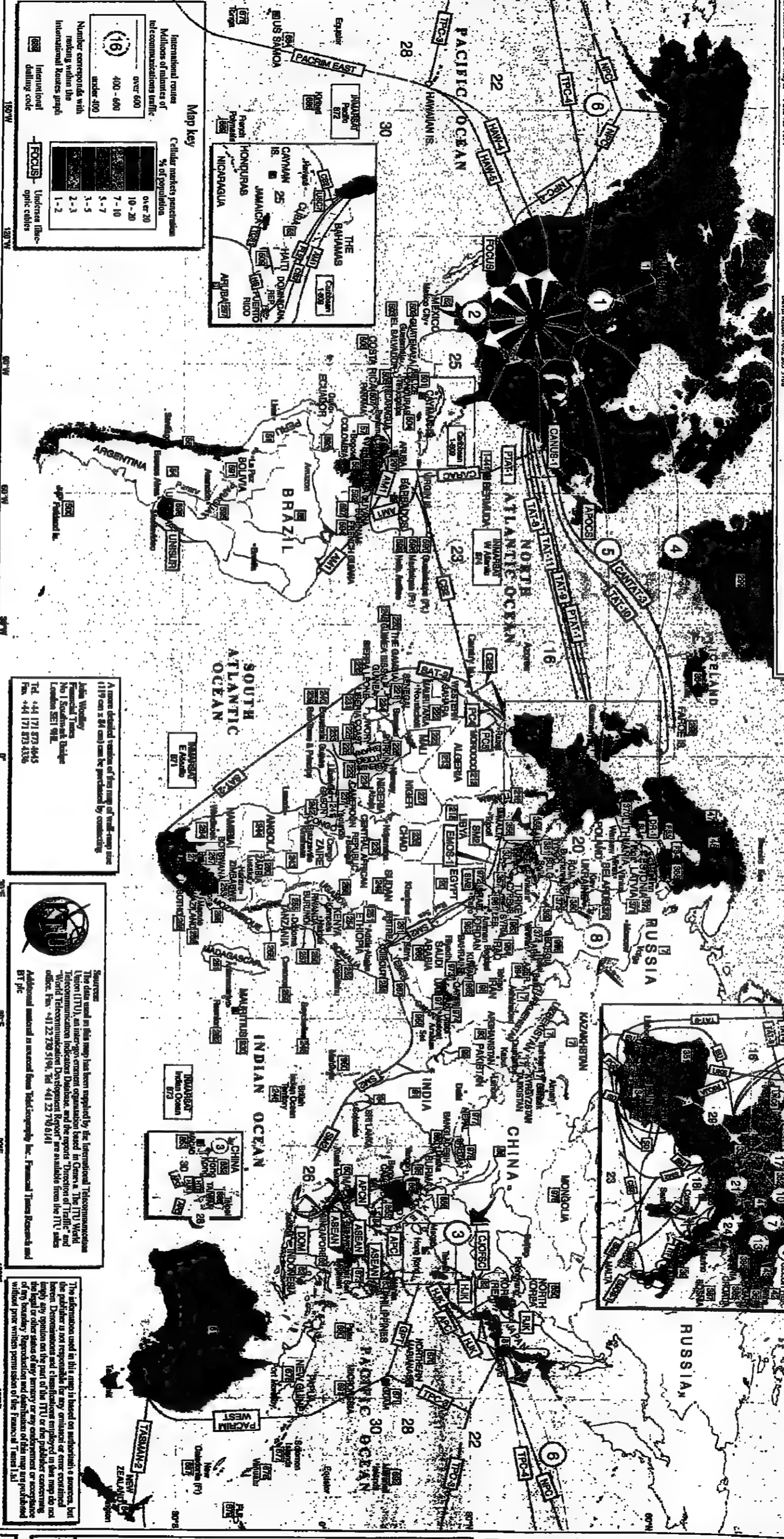
International Telecommunications Map
produced by the FINANCIAL TIMES in association with

Salomon Brothers

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The Global Telecommunications Marketing Team

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Map key

International routes
Millions of minutes of
cellular communications traffic
over 600
400-600
under 400

Cellular markets penetration
% of population
10-20
7-10
3-7
1-2

Number of countries with
mobile cellular service
1-2
3-5
6-10
11-20
21-30
31-40
41-50
51-60
61-70
71-80
81-90
91-100

Legend
- FOCUS - Underline like
open circles

Map key

International routes
Millions of minutes of
cellular communications traffic
over 600
400-600
under 400

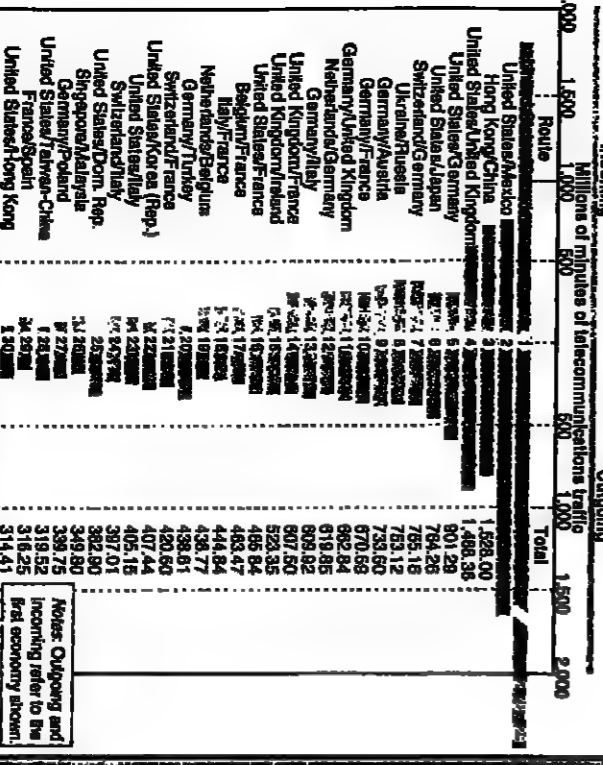
Cellular markets penetration
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Number of countries with
mobile cellular service
1-2
3-5
6-10
11-20
21-30
31-40
41-50
51-60
61-70
71-80
81-90
91-100

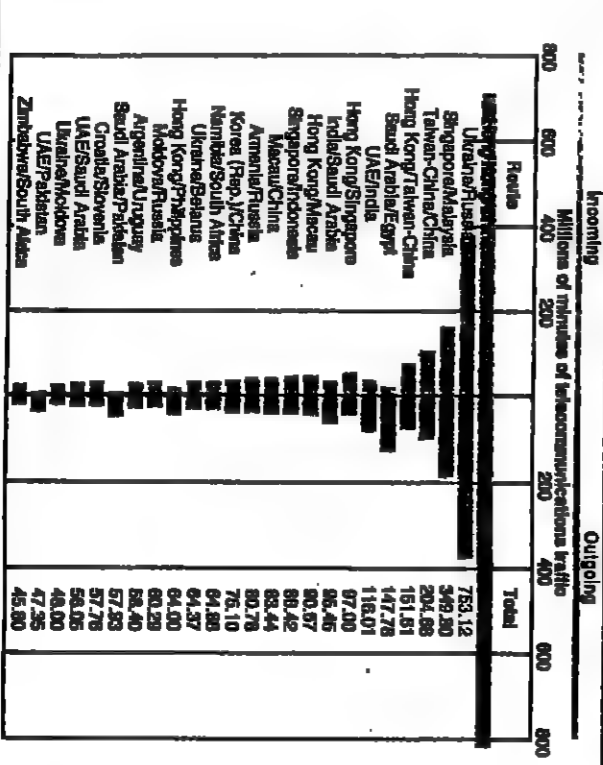
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Top 30 international routes (1994)

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Top 25 International routes among developing economies (1994)

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Shifting allegiances



Share of outgoing international traffic by major regions

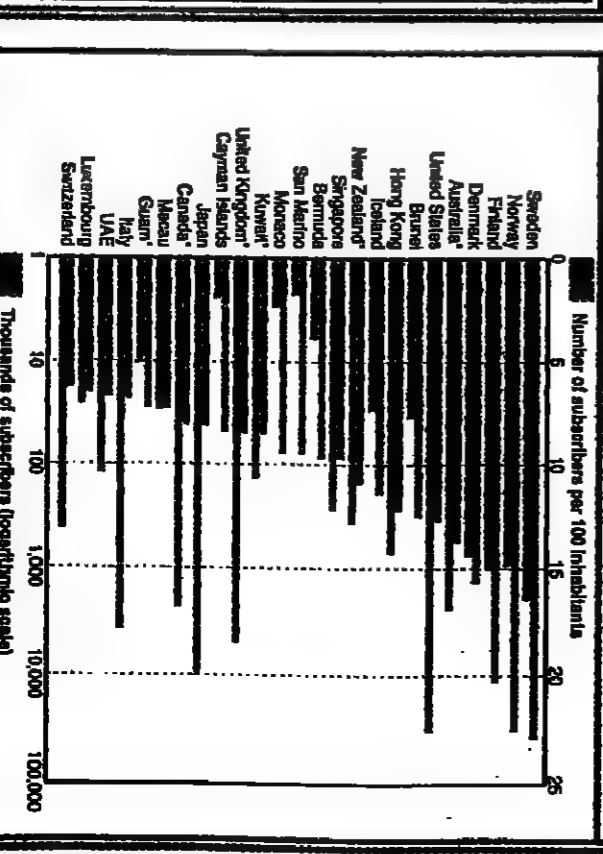
Region	Share (%)
Other	39.3%
Europe	27.7%
Asia/Pacific	18.9%
Latin America	10.6%
Africa	7.4%
Middle East	5.1%

Total: 20.4 billion minutes

Region	Share (%)
Other	40.2%
Europe	30.4%
Asia/Pacific	18.9%
Latin America	11.5%



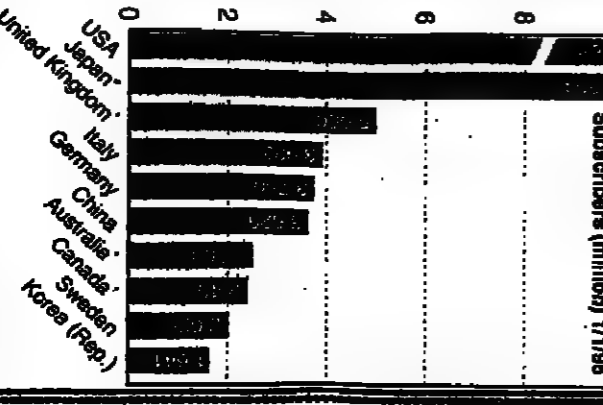
Top 25 world cellular markets by penetration (1995)



Country	Number of subserpents per 100 amphibians (approximate)
Sweden	100,000
Norway	10,000
Finland	1,000
Denmark	1,000
Austria	1,000
United States	1,000
Burma	1,000
Hong Kong	1,000
Japan	1,000
New Zealand	1,000
Singapore	1,000
Bermuda	1,000
Samoa	1,000
Malaysia	1,000
Hawaii	1,000
United Kingdom	1,000
Cayman Islands	1,000
Canada	1,000
Madagascar	1,000
Guam	1,000
VAE	1,000
Laurelburg	1,000
Switzerland	10



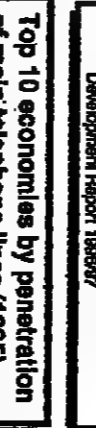
Rehabilitation (with) and (for) the



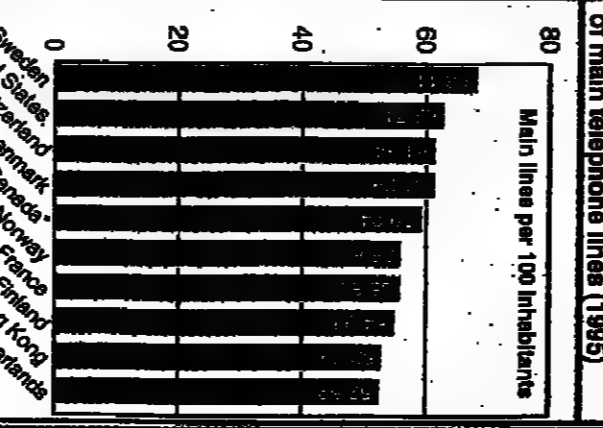
Country	Students (thousands)
USA	10.0
United Kingdom	8.5
Japan	5.0
Italy	4.5
Germany	4.0
China	3.5
Australia	2.5
Canada	2.0
Sweden	1.5
Korea (Rep.)	1.0

Economy		Company
Australia	100 per cent state-owned enterprise	Telstra
Colombia		CI Telecom
Costa Rica		NETEL
Ecuador		ENITEL
El Salvador		ANTEL
France		Franco Telecom
Germany		Deutsche Telekom
Ghana		Ghana Telecom
Greece		Telecom Hellas
Holland		Telecom Nederland
Indonesia		PT Telekom
Italy		STET
Japan		NTT
Mexico		Telecomunicaciones de Mexico
Morocco		ONPT
Netherlands		Telcel
Nicaragua		Paratel
Norway		Telecom Norge
Peru		INTELCO
Philippines		Philatel
Poland		Poltelex
Russia		Telecom Russia
Spain		Telefonos de Espana S.A.
Sweden		Swedish Telecom
Switzerland		PTT Suisse
Taiwan		Formosa Telecom
Thailand		TTT
Turkey		Telekom Turk
U.S.A.		AT&T
U.K.		British Telecom
U.S.S.R.		Telecom USSR
Yugoslavia		Yutel

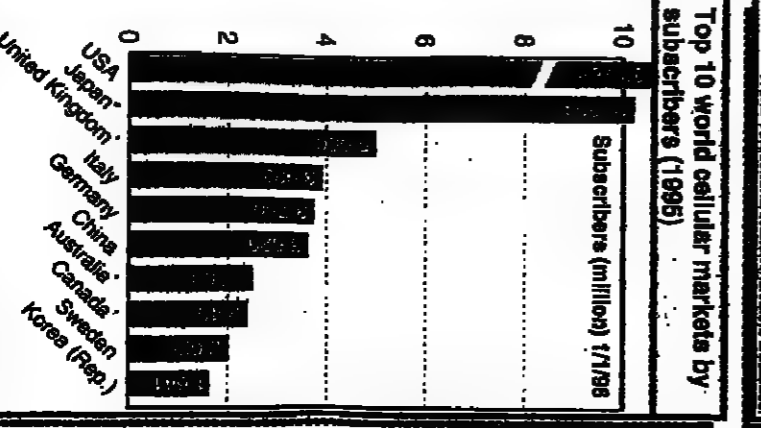
Economy		Company
Australia	100 per cent state-owned enterprise	Telstra
Colombia		CI Telecom
Costa Rica		NETEL
Ecuador		ENITEL
El Salvador		ANTEL
France		Franco Telecom
Germany		Deutsche Telekom
Ghana		Ghana Telecom
Greece		Telecom Hellas
Holland		Telecom Nederland
Indonesia		PT Telekom
Italy		STET
Japan		NTT
Mexico		Telecomunicaciones de Mexico
Morocco		ONPT
Netherlands		Telcel
Nicaragua		Telecomunicaciones de Nicaragua
Norway		Televerket
Peru		INTELCO
Philippines		Philippine Telecommunications Corp.
Poland		PTP
Russia		Telekomunikatsiya
Spain		Telefonos de Espana S.A.
Sweden		Swedish Telecom
Switzerland		PTT Suisse
Taiwan		Formosa Telecom
Thailand		TTT
Turkey		Telekom Turk
U.S.A.		AT&T
U.K.		British Telecom
U.S.S.R.		Telecom Sovetskoye Soyuza
Yugoslavia		YPT



Top 10 economies by penetration



Country	Main lines per 100 inhabitants
Sweden	68
United States	65
Westland	62
Denmark	60
Canada	58
Norway	55
France	52
Ireland	48
United Kingdom	45
Portugal	42



Country	Subscribers (million)
USA	9.5
Japan	8.5
United Kingdom	7.5
Italy	5.5
Germany	4.5
France	4.5
China	3.5
Australia	2.5
Canada	2.5
Sweden	2.0
Korea (Rep.)	1.5

International

TELECOMMUNICATIONS

PART 1

IN THIS SURVEY

● The global alliances: articles on Global, WorldPartners and Concert follow pattern of recent the state of carrier link-ups

● South Africa: the state is addressing the deep disparities in the provision of telephone services Page 2

● Interview: Alan Cane talks to Richard Brown, newly appointed chief executive of C&W Page 3

● Germany and BT: articles examine the new climate of competition in Europe's largest economy and the prospects of Deutsche Telekom

● France: the investment battle benefiting from the telecoms boom Page 4

● Europe: developments in France, Italy, the UK and Russia and eastern Europe Pages 5 and 7

● Asia: articles cover Japan, Taiwan, China, India and Pakistan Pages 8 and 9

● The Americas: recent trends in the US, Canada, Mexico and Brazil Page 11

While national governments are busy liberalising their telephone industries, the rate of change, shows broad geographic differences, writes Alan Cane

Global sell-off gathers pace

The global telecoms business is peering into a future guaranteed to bring unprecedented structural change as a result of liberalisation, globalisation and a shift from traditional telephone services to multimedia.

Companies once seen as natural state-owned monopolies are being privatised at a rate which will force the investment community to dig deep into its pockets. A first tranche of Deutsche Telekom comes to market in November with a \$10bn price tag. Siet of Italy and France Télécom are expected to follow early next year.

At a technical level, moreover, the industry is faced with replacing the infrastructure of the global telecoms network before it ceases to a halt under the burden of demands from customers which were never envisaged when the present network was designed.

Opening up most of the world's telecoms markets to competition remains crucial to the creation of an advanced international telecoms network capable of supporting a global economy.

World Trade Organisation talks earlier this year failed to secure such a global agreement. A new deadline of February 15 next year has been set in the hope that enough major countries can be persuaded to promise to open their markets to the extent that an accord can be reached.

The pace of change, however, shows broad geographic differences. The North American market, which accounts for 30 per cent of the world's telecoms traffic, is in a ferment of activity over opportunities made possible by the 1996 Telecommunications Act, which opened the country's local, long-distance and cable television service markets to full competition.

It allows, for example, the regional phone companies, the "Baby Bells", to compete with AT&T and other long distance carriers in the lucrative long-haul market. Only weeks after the passage of the Act, a number of the Baby Bells have picked strategic partners to improve their competitive position. SBC Communications and Pacific Telesis announced a merger in April. Bell Atlantic and Nynex followed suit three weeks later.

The ground rules for competition in the US in this newly liberalised environment have yet to be finalised. Reed Hundt, chairman of the Federal Communications Commission, the regulatory body charged with setting the rules, said earlier this month: "If we do our job right, we will pull off the most successful bit of de-monopolisation since the break-up of the Standard Oil Trust in 1911; we will boost America's world leading productivity rate; we will stimulate hundreds of billions of dollars in new investment in the next 10 years and as a result we will see as many as 1m new jobs created in that time period."

Fears that such a communications revolution, led by companies whose entrepreneurial spirits and efficiency had been honed in competitive markets, would leave Europe lagging were behind the decision to open the EU's voice, data and infrastructure markets to full competition from January 1, 1998.

Similarly, the dominant operator in the Asia Pacific region, NTT of Japan, which has an 87 per cent share of its domestic wireline telephone business, is facing renewed calls for its break-up. A study panel within the Japanese telecoms ministry argued that breaking the group into a

single long-distance operator and two local operators would speed liberalisation of the domestic industry and improve earnings.

NTT countered, however, that the break-up would not only be prohibitively expensive, but that it would damage its global competitiveness and reduce investment in telecoms R&D. The Japanese government has delayed a decision on the break-up until the end of the current financial year.

An immediate effect of competition is to reduce prices. Despite the fact that only the UK, Sweden and Denmark operate fully liberalised markets, prices have been falling across Europe for the past decade as operators prepare for 1998.

Analysys, a Cambridge-based consultancy specialising in calculating telecoms costs says: "As liberalisation proceeds and European operators increasingly move into each other's markets, there will be pressure for [currently] non-liberalised countries to bring their prices into line with liberalised countries."

Mobile phone services in Europe have, in general, been liberalised from the outset. Even so, the most dramatic price decreases have been seen in countries with a number of competing operators. In the UK, for example, where Vodafone, Cellnet, Orange and Mercury One-2-One are fighting fiercely for market share, high usage business customers have seen price declines of more than 50 per cent.

In the mature economies, however, there is little scope for growth in the basic business of providing telephone lines and services. Increased competition, lower technology costs and falling prices mean telecoms operators, wash with cash now, will find profit margins squeezed by the turn of the century. Price pressure will apply to large and small operators and to fixed wire and mobile operators. Operators used to monopoly profits such as Deutsche Telekom and France Télécom will be hardest hit.

The measures to counter the threat of declining profitability include the formation of strategic alliances at a global level to compete for the business of large international customers and local alliances to challenge incumbent operators on their home territory. The principal global alliances are Concert established by BT and MCI of the US, Global One, set up by Deutsche Telekom, France Télécom and Sprint of the US and WorldPartners led by AT&T.

Cost-effective operations will become crucial as older operators burdened with a bureaucratic decision-making structure and a surfeit of staff, fight for market share against a host of nimble new operators.

The need for continued heavy expenditure on infrastructure and new services may see operators make increasing use of non-recourse funding for major projects. They are already putting pressure on their suppliers to cut prices.

Multimedia services in a variety of forms from video-conferencing to Internet services and broadcast entertainment offers operators a golden opportunity to maintain and increase profitability.

Today's networks, however, are not up to the task. Much depends on the operators' commitment to creating infrastructure suited to 21st century services. Alan Cane explains why the global telephone network is at risk from the demands of the multimedia revolution on page 13 of this survey.



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هاتف الاتصالات

PROFILE Cable and Wireless's new chief executive

Brown ready to ring the changes at C&W

Key executives from the corners of the Cable and Wireless empire were in London this week to hear Richard Brown, the company's recently appointed chief executive, deliver his preliminary judgements on the group's progress and prospects.

Since his arrival on July 1, Mr Brown has spent little time behind his desk in the company's Theobalds Road, London, offices. He has been "logging up air miles, fighting off flu, weathering jet lag and trying to keep up with the work back at headquarters" while acquainting himself with what he describes as "the most global telecommunications company I know".

C&W, the UK's second largest telecoms company, made profits of £1.34bn on turnover of £5.5bn last year. It has interests in some 50 countries. Its UK subsidiaries are Mercury Communications and mobile operator Mercury One-2-One.

Mr Brown, born in New Jersey 49 years ago, and educated at Ohio University in the American mid-West, is well known in US telecoms circles, but something of an unknown quantity in Europe. Indeed, before Dr Brian Smith, C&W chairman, offered him the job, he was a stranger to the UK.

He took over in unusual circumstances. The former chairman and chief executive had both been forced out after an acrimonious boardroom row. Merger talks between C&W and British Telecommunications, which would have created one of the world's largest telecoms groups, had collapsed.

Analysts had become increasingly gloomy about C&W's prospects, pointing to its dependence for the bulk of its profits on its 87.5 per cent owned subsidiary, Hongkong Telecom, and its perceived lack of a coherent business strategy.

Much, therefore, is expected of Mr Brown. The contrast with his predecessor at C&W, James Rose, is marked. Mr Rose came from the oil business while Mr Brown has 27 years of experience of senior roles in the telecoms industry. Mr Rose is austere and cerebral while Mr Brown laughs

easily and often and favours sporting metaphors. Those who know him, however, say that his capacity for ruthlessness should not be underestimated.

Mr Rose favours consensus management, a style Mr Brown deplores: "I am bent more on action than strategy," he says sharply. "I understand the value of a strategic plan, but too many times people labour over the strategy to get it picture perfect, while failing on the execution. I admire intelligence but I believe the world has more smart people than effective people."

The pattern of Mr Brown's career suggests that he is both

'The winners of the future in this industry will not be the bigger players but the better players'

smart and effective. After leaving university, where he read both engineering and English, he joined Ohio Bell, a local telecoms company, working his way up through a variety of jobs on the services side.

In his thirties, he became vice-president, engineering, with United Telecommunications, a company which evolved into Sprint, the third largest US long-distance carrier. While at Sprint he first became acquainted with C&W through joint work on transatlantic cable routes.

He moved from Sprint to the role of chief executive at Illinois Bell, the largest subsidiary of Ameritech Corporation, one of the seven "Baby Bells" which provide local phone services in the US, and then to vice-chairman at Ameritech itself.

While at Ameritech he took a leading role in preparing the groundwork for the US Telecommunications Act, passed this year, which effectively

demolished the barriers between local, long distance and international services.

His last job before joining C&W was chief executive of H&R Block, the largest US tax preparation company and owner of the on-line information service CompuServe.

An unusual departure for a telecoms executive, perhaps, but Mr Brown says he was excited by the challenge of running a large, publicly quoted company. "What really lured me was the fact that CompuServe was there, so I could dabble in the on-line services industry," he says.

What seems to have impressed Mr Brown most in his whistle-stop tour of C&W is the quality of its global assets. It has operations in western Europe, eastern Europe, the Asia Pacific region, the US and the Caribbean.

Many analysts expect Mr Brown to seek to put together a big deal - a merger or strategic alliance - within the next few months. He, of course, is giving no detail of his intentions, but the broad outlines are clear. He intends to focus on growth, efficiency and identity, the last because he thinks C&W's potential is a well kept secret. "We must do a better job of raising our profile."

The key, however, is revenue growth. "A healthy bottom line begins with the top line. The sustainable health of a business is dependent on recurring top-line growth. The trick will be to focus on turnover without sacrificing bottom line performance."

"Cable and Wireless is big enough to be successful as an independent but small enough to be nimble. I think the winners of the future in this industry will not be the bigger players but the better players. It will be the ones who can move quickly, the ones who are tuned into their markets, the ones who perform."

He is willing to discuss some of his immediate objectives. Where C&W decides to remain in a particular country, for example, he wants it to put down deeper roots, by which he means selling a multiplicity of products rather than single service.



Richard Brown: 'Cable and Wireless is big enough to be successful as an independent but small enough to be nimble'

Lynne von der Meer

"If we are in mobile, we should consider what it takes to be in wireline and what it takes to be in data or video. Margins are better if you sell multiple services into a single market," he says.

C&W is one of the world's largest mobile operators, but he wants to see better integration between its fixed wire and mobile services. In the UK, that will

mean closer co-operation between Mercury and Mercury One-2-One. "No wireline company can be successful in the future if it does not have a wireless capability. The firms that divorce the two technologies are crippling themselves," he says.

He is keen to strengthen Mercury and to involve it more deeply in international activities, especially in mainland Europe.

Funding for the UK operator will rise but at the expense of other investments. "You should not expect to see any big surprises in our capital expenditure programme for at least the next 12 months," he says.

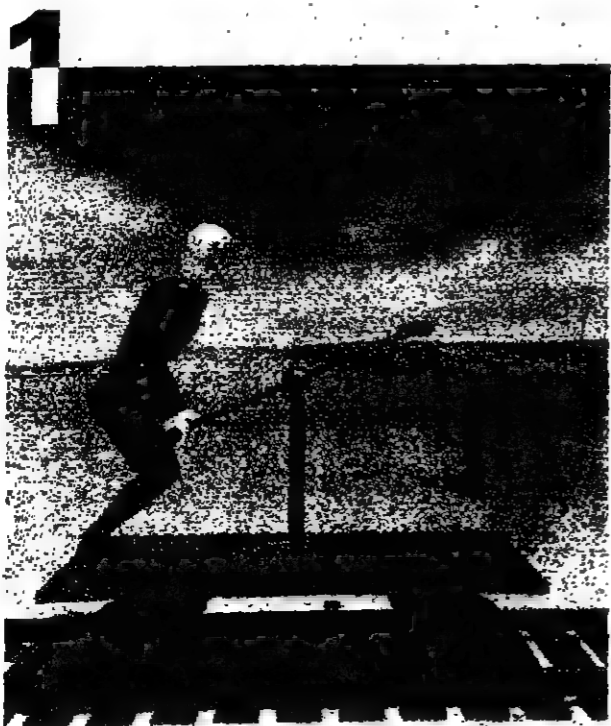
Mr Brown says his immediate priority is to ensure that the interests of C&W shareholders are protected during the transfer of power in Hong Kong from the

British to the Chinese government next year. "I have a great deal of confidence that can be arranged," he says.

"The only measure of business leadership success is how the shareholder benefits over time," he says. "My objective is to make the shareholder wealthy."

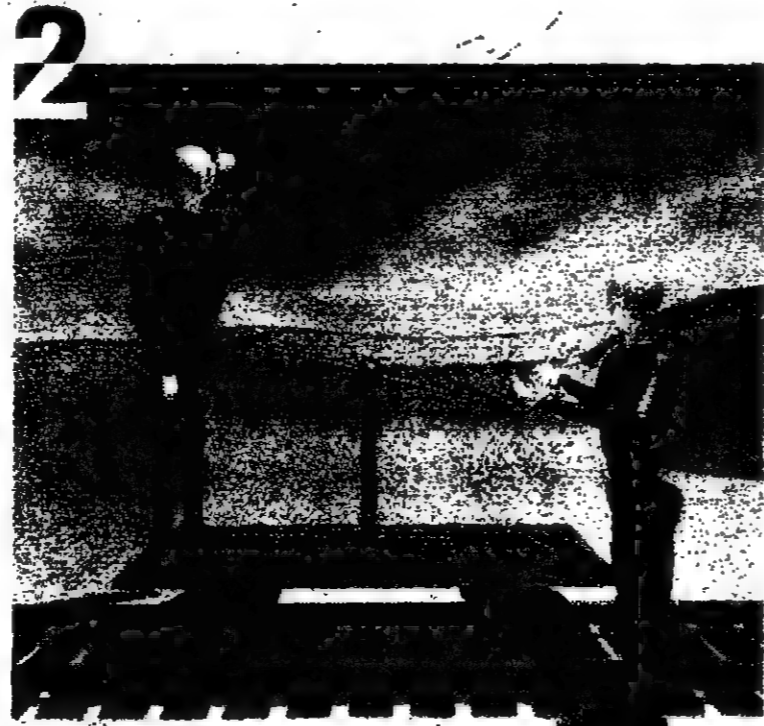
Alan Cane

SIEMENS NIXDORF



The challenge at hand

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6 INTERNATIONAL TELECOMMUNICATIONS: EUROPE

■ Italy: by David Lane

'Telefonino' embraced with vigour

A commercial battle lies behind these figures. TIM has enjoyed significant advantages over its private sector rival, launching its GSM service early last April on the back of its large analogue subscriber base and with an eight-month lead over Omnitel. The state-controlled telephone company has fought tooth and nail to protect its dominant position.

Rarely shy about conspicuous consumption, and great talkers, Italians have taken enthusiastically to mobile telephony: the "telefonino" (mobile telephone) has caught on quickly and spectacularly. It has become a standard accessory from top to bottom of the social scale, bristled on trains, buses and street corners, in restaurants and at the wheel of moving cars.

Large scale use of mobile telephony is good news for Italy's two mobile telephone companies. And this summer Telecom Italia Mobile (TIM), the operator in which Stet, the state telecoms holding, has a 57 per cent stake, and Omnitel (the private sector, second GSM operator in which Olivetti has a 41 per cent interest) have been deluging the public with advertising and special offers aimed at boosting subscriber numbers further.

TIM had 3.7m analogue users on its books at the end of June, together with almost 0.8m GSM digital subscribers: it is expected to add a further 0.7m by year-end 1996. While TIM's increase in subscribers will be more modest than the 73 per cent achieved during 1995, it should nevertheless be a healthy 35 per cent.

Omnitel, whose commercial operations started last December after two months of trials, had just over 0.1m subscribers when it was able to offer national roaming in March. Its numbers had risen to 0.3m by the end of June, and the company expects to be serving 0.4m by the end of this year and 1.0m at the end of 1996.

Both the European Commission and Italy's own competition authority unsuccessfully challenged TIM's lead, arguing in favour of a level playing field for both GSM operators.

However, while Omnitel was constructing its network from scratch, completing its first base transceiver station in June last year, TIM was building an unchallenged position in GSM. Moreover, not content with its own booming business, the state-controlled operator tried to obstruct Omnitel, contesting the legality of the private sector company's experimental operations last autumn and the geographical coverage that it claimed.

The eight-month lag in competing with TIM's GSM services has been a serious handicap for Omnitel. In addition, it carries the burden of a L750bn licence fee. And while the company underlines that a L1,800bn credit facility agreed last year was 40 per cent over-subscribed, it lacks TIM's financial muscle. With almost no revenues last year, Omnitel lost L125bn. In contrast, having been spun off into a separate company in mid-July 1995, the state mobile telephony operator reported L350bn net profit on L2,845bn revenues in less than six months.

But in a booming market, even being number two brings rewards. Omnitel expects to break even in 1998, its third year of operations, and to profit from an expansion of mobile telephone services that could bring penetration to 50 per cent of the population over the next 5-7 years.

Indeed, in a recent report on Stet, TIM's parent, Lehman Brothers said it expects Omnitel to have 34 per cent of the market by the year 2000, against TIM's 68 per cent.

There is even space for a third operator: Lehman Brothers forecast that a newcomer can expect to have 8 per cent of the market in 2000. That this could be an appetising morsel is underlined by the interest that the competition for the PCN licence at 1.8GHz frequency, is expected to generate.

One contender should be Albacom Industrial, a joint venture linking Albacom, a company in which BT has a 50.5 per cent stake and treasury-owned Banca Nazionale del Lavoro 49.5 per cent, and the Mediaset television company of former prime minister Silvio Berlusconi. The venture was finalised at the end of May, Albacom taking a 70 per cent interest and Mediaset 30 per cent.

Snam, the operator of Italy's national gas grid, is expected to join soon, adding its advanced communications network to the assets provided by the other three partners.



Any time, any place, anywhere: mobile phones have caught on spectacularly in Italy

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Indeed, in a recent report on Stet, TIM's parent, Lehman Brothers said it expects Omnitel to have 34 per cent of the market by the year 2000, against TIM's 68 per cent.

There is even space for a third operator: Lehman Brothers forecast that a newcomer can expect to have 8 per cent of the market in 2000. That this could be an appetising morsel is underlined by the interest that the competition for the PCN licence at 1.8GHz frequency, is expected to generate.

One contender should be Albacom Industrial, a joint venture linking Albacom, a company in which BT has a 50.5 per cent stake and treasury-owned Banca Nazionale del Lavoro 49.5 per cent, and the Mediaset television company of former prime minister Silvio Berlusconi. The venture was finalised at the end of May, Albacom taking a 70 per cent interest and Mediaset 30 per cent.

Snam, the operator of Italy's national gas grid, is expected to join soon, adding its advanced communications network to the assets provided by the other three partners.

Ubaldo Livolsi, Mediaset's managing director, believes that a third mobile telephone operator will have greater opportunities than the second GSM operator. He says that PCN will be a technological and commercial leap forward, offering real potential for replacing fixed telephony thanks to a combination of competitive tariffs and a high signal quality that will be markedly better than GSM.

"Albacom should be the front-runner for the third operator's licence. The partners have enormous technological knowhow, operational and managerial competence, and great financial strength," says Mr Livolsi.

Albacom lost the battle for the telecoms business of the Ferrovie dello Stato (FS, Italian state railways) at the beginning of August, however. This went to a consortium of Olivetti and France Telecom in a competition that also involved America's AT&T and Japan's NTT. The FS will spin off its telecoms assets into a separate company in which the Olivetti-France Telecom consortium will have a 70 per cent stake while it will hold 30 per cent.

The big prize, however, is the third operator's licence which could be awarded by early next year. Meanwhile, the autumn promises elections. Stet, which controls

Telecom Italia, the fixed telephony business, as well as TIM, and whose privatisation has been long promised, will be at the centre of the storm.

In early August, the government announced plans for the sale of Stet between 1 February and 31 March next year. There will be a stable hardcore group of predominantly Italian shareholders, but the treasury ministry will also have special powers through ownership of a golden share.

Separation of fixed and mobile telephone services will not be allowed, although the government is seeking a limited break-up for Stet. Its fixed telephony business is to be sold separately, while STIR (installation engineering), Finisiel (information technology) and Italtel (manufacturing) may also be sold.

The plan for privatising Italian telecoms seems a botched job. Romano Prodi's centre-left government ducked an important issue when re-appointing Stet's head-dragging top managers in June. And its plans fall short of aiming for a focused, competitive industry.

Even so, the plans are under attack from the hard-left Partito Rifondazione Comunista on whose support the government depends: the party is committed to block telecoms privatisation. And there will be no relief from the extreme right where the neo-fascist Alleanza Nazionale considers telecoms a strategic national asset.

In July the government announced draft legislation for establishing a telecoms regulatory authority - a precondition for privatisation - and for reorganising the sector.

Privatisation's opponents will find ample scope for filibuster. Given many missed deadlines in the past, the odds are heavily against Stet's sale next spring.

■ Russia: by John Thornhill

A new rival steps into the game

The emergence of a competing company could attract additional investment

In Soviet times, Russians used to joke about the country's leaders under their breath. Today they satirise New Russians, who have made a quick fortune out of the country's capitalist revolution and flaunt their wealth outrageously. The latest joke concerns that most essential accessory for every self-respecting plutocrat: a mobile telephone.

Three are New Russians sitting in a restaurant. One pulls out a water-thin telephone and starts talking. Not to be outdone, the second whispers into his lapel, explaining that a miniature telephone is sewn into his suit. The third starts juddering uncontrollably and makes chugging noises.

"What's wrong with you?" his colleagues ask.

"I'm receiving a fax."

The liberal use of mobile phones is the most visible sign of how the strictly controlled Soviet communications system has begun to be replaced by an astonishing array of cellular, wireless, fibre optic and satellite telephone networks. It is estimated that the number of cellular phone subscribers in the country will expand from 100,000 at present to 1.2m by the end of the decade.

This explosion of telephone use has not been only among the new elite. As Russia has re-integrated itself into the world economy, the number of international calls has rocketed. In 1995, there were just 1,000 international lines in the country. That has expanded to 45,000 today.

Russia may still be perceived as an economic and political risk. But with a largely-urbanised population of 150m, Russia is emerging as one of the most interesting developing markets for some of the world's biggest telephone companies, such as Deutsche Telekom, France Telecom, and US West.

Miles Davenport, head of US West's Moscow office, praises the ministry of telecommunications for the speed with which it has introduced regulations allowing a new generation of operators to emerge.

US West has so far invested \$35m in eight telephone projects and has received a \$200m loan facility from the US Overseas Private Investment Corporation to fund further developments.

"Russia is in the top five developing telephone markets for sure, maybe even in the top three," says Mr Davenport. "Asia has so far won most of the attention but Russia is in with a shout."

At present, the Russian telephone industry is still dominated by Rostelekom, established as an independent company after being broken out of the Russian ministry of communications in 1992. Rostelekom controls almost all the long distance and international lines in the country and has become an extremely profitable business after jacking up prices towards world levels.

In 1994, Rostelekom made revenues of \$204m on pre-tax profits of \$553m. ING Barings, the Dutch banking group, estimates that the company will have increased pre-tax profits to \$375m last year.

Rostelekom is ploughing much of this money back into updating its network and has formed a number of joint development projects with western telecoms companies. It has just completed the second phase of a microwave and fibre optic trunk line reconstruction project, linking 25 population centres stretching between Moscow and Nakhodka in the far east and then across the Sea of Japan.

But the biggest debate in the Russian telephone industry concerns how a rival company, Svyazinvest, might be allowed to develop as an alternative long-distance and international operator to attract additional investment and stimulate competition.

Svyazinvest could be one of the most exciting opportunities to arise in the global telecoms market recently, although some industry observers doubt the wisdom of allowing competition to emerge at such an early stage in the development of the Russian telephone industry.

Most national telephone networks have been built by monopoly operators, which have channelled "superprofits" from lucrative regions into extending lines into less attractive rural areas, they suggest.

At present, the recently-created company is just a holding company for the state's 38 per cent shareholding in 85 regional telephone operators with a valuable licence for long-distance and interna-

tional calls. But the longer-term intention is to use Svyazinvest as an investment platform enabling it to develop a network to compete with Rostelekom.

To this end, the government is trying to sell 25 per cent of the company to a western strategic investor this year, with a further 24 per cent to be sold to international institutional investors in the future to raise more capital for expansion.

But the project has raised a vast array of regulatory, legal, financial and operational concerns which have deterred many western companies. The biggest uncertainty is how Rostelekom will react to the upstart competition, especially considering Svyazinvest will have to rely on it to route many of its calls abroad.

A previous deal to sell the 25 per cent stake to Stet, the Italian telephone company, collapsed last December amid much acrimony after the two sides failed to agree the details of the deal.

Stet finally balked at paying \$650m for the 25 per cent stake and making a further \$770m of investments in developing the country's telecoms infrastructure.

Nonetheless, Stet may well be back in the picture later this year, while Deutsche Telekom, AT&T, and some private investor groups are also believed to have expressed an interest.

Alfred Kokki, the deputy privatisation minister, said the Russian government was hopeful of reviving the project this autumn - although he suggested the price would have increased from last year.

But the Russian government will have to do a better job of setting up the regulatory framework if it wants a successful sale of Svyazinvest. It will have to determine whether Svyazinvest is to be an investment holding company or an actively-managed operator and clarify issues about tariffs and competing licences.

"If the government does not address these basic regulatory issues in the next couple of months and just wants money in the treasury then it runs the risk of repeating the same fiasco as last year," says one telecommunications analyst.

Meanwhile, other foreign telephone companies will continue to develop their patchwork quilt of local operating networks. There is a long way to go. Russia has just 17 telephone lines per 100 people compared with 60 lines in the US.

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■ The UK: by Alan Cane

High drama dominates

An abandoned merger almost created one of the world's biggest telecoms groups

It has been an extraordinary 12 months, even for the volatile and fiercely competitive UK telecoms industry. Some of the year's developments would not have seemed out of place in a TV soap opera.

British Telecommunications, the UK's dominant operator, and Cable and Wireless, parent of Mercury Communications, its main competitor, came close to a merger which would have created one of the world's largest telecoms groups with a market capitalisation of \$25bn and unprecedented geographic depth and spread.

It would have been a unique deal: C&W would have acquired BT through a reverse takeover to sidestep regulatory problems involving the C&W subsidiary Hongkong Telecom. The negotiations foundered for a multiplicity of reasons - price, regulatory and competitive concerns and cultural differences.

The talks were partly precipitated by extraordinary boardroom goings-on at C&W. These resulted in the dismissal at the turn of the year of both Lord Young of Graffham, the group's ebullient chairman, and James Ross, its cool and analytical chief executive.

The two men had quarrelled publicly and embarrassingly over the direction of the group. The non-executive directors acted swiftly to end the strife, asking former director Dr Brian Smith, chairman of BAA, to take over as chairman and

finance director Rod Olsen to hold the fort as acting chief executive.

The search for a new chief executive for the group ended in May with the appointment of Richard Brown, a former vice-chairman of Ameritech, one of the larger US local phone companies and most recently president of H&R Block, a tax consultancy and owner of Compuserve, the online information service.

The attention of most of the industry, however, was captured by the long-running battle of words and wits between BT, led by its new chief executive, Sir Peter Bonfield, and Don Cruickshank, the telecoms regulator, over the future regulation of the industry.

Many of BT's prices are capped by a formula designed to force the former state-owned monopoly to greater efficiencies and to protect customers from undue price rises. The formula, the rate of inflation minus 7% percentage points, is reviewed every five years. Mr Cruickshank had been holding an industry-wide consultation to decide the formula to apply from the autumn of 1997 to 2001.

But early on, he indicated that he favoured tough measures - inflation minus 5% percentage points to apply to 60 per cent of BT prices. He also demanded powers enabling him rapidly to identify and outlaw unfair trading practices.

BT was horrified by both proposals. It argued that the existing formula was depressing both profitability, and its share price and that the new efficiencies Mr Cruickshank was demanding were unobtainable.

It warned of a "cash starved industry littered

with business failures" if the price controls were applied, pointing out that BT's competitors would find it difficult to survive on the thin profit margins left after undercutting BT's prices. It also said the fair trading proposals were unjust, allowing Mr Cruickshank to appoint himself judge, jury and executioner while BT would have no recourse to an independent arbiter.

When regulator and licensee disagree on such matters, the only course is a referral to the Monopolies and Mergers Commission, an unpopular move as it absorbs management time and creates damaging uncertainty in the industry. Mr Cruickshank used it for the first time this year, however, after he and BT failed to agree on who should pay for the costs involved in number portability, a customer's right to retain the same phone number when changing operator.

The MMC essentially backed the regulator, ruling that BT should bear the lion's share of the costs. The judgement is likely to benefit cable companies and other telecoms operators in persuading customers to move away from BT.

No clear sign emerged that the MMC would back Mr Cruickshank on the question of BT's prices and the fair trading condition. But its views were never tested. Mr Cruickshank, who maintained that he did not expect the issue to go to the MMC, took some of the steam out of BT's attack by settling the value of X at 4% percentage points and applying it chiefly to residential and small business users. At the eleventh hour, BT accepted the pricing formula and, after some modifications, the

fair trading condition. An important point, however, is the view of both Mr Cruickshank and BT that this will be the last phase of regulation in UK telecoms.

After 2001, it is expected that competition will be sufficiently well developed to make price controls unnecessary. The Office of Telecommunications will then adopt the role of market policeman rather than regulator.

Competition continues to intensify, helped by government moves including the decision to remove the final vestiges of monopoly power from BT and Mercury with the ending of restrictions which prevented other carriers from owning and operating their own circuits for international calls.

The list of companies seeking international licences includes AT&T, the largest US long-distance operator, which is building up its UK presence, and Energis, the national operator owned by the National Grid.

Although the cable companies, in particular, are winning customers from BT at the rate of several tens of thousands a month, BT's market share has declined only a few percentage points in the past decade. This is largely because of its dominance in the "local loop", the connection between office or home and the exchange.

A number of companies, of which Ionica of Cambridge is the best known, are beginning to offer an alternative local connection in the form of a fixed radio link. The technology is low cost, effective and allows an operator to trade profitably with a 5 per cent market share or less. This revolution in the local loop could help reshape the UK telecoms market.

مكتبات الصحف

■ Eastern Europe: by Kris Szaniawski

The state's grip loosens

Foreign interest is picking up as privatisation schemes get under way

Strong growth, stabilising economies and improving legal structures are raising investor confidence in central and eastern Europe. Foreign direct investment in the region exceeded \$11.3bn last year, nearly double the amount in 1994, according to European Bank for Reconstruction and Development estimates.

Much of that foreign investment is going into telecommunications. This is not surprising as the average telephone density in eastern Europe is still only about 15 lines per 100 inhabitants, less than one-third of that in the European Union, and waiting lists for new phones often run into the millions. Hungary and the Czech Republic have led the way in the investment drive by selling stakes in their national operators.

Hungary became the first east European country to yield state control of its national telecoms operator

when it sold a majority stake in Matáv last December.

MagyarCom, a joint venture equally owned by Deutsche Telekom and Ameritech, paid about \$850m to the state privatisation agency for an additional 37 per cent of Matáv, giving it a majority 67-per-cent holding. In late 1995 Deutsche Telekom and Ameritech had already paid \$975m for a 30 per cent stake in Matáv. In the Czech Republic a 27 per cent stake in the national operator, SPT Telecom, has been awarded to a consortium led by TTI Netherlands at a cost of \$1.45bn.

Others are expected to follow. The Polish government announced this June that it would soon begin privatising the state-owned national carrier Telekomunikacja Polska (TPSA), probably starting with the sale of a minority stake next year. It is thought likely that the government will opt for a flotation of TPSA in combination with the sale of a stake to a strategic investor.

In Hungary and the Czech Republic, stakes in the national operators were sold solely to strategic investors, but the political climate in Poland is not thought to favour the sale of a significant stake in a strategic Polish company to a foreign owner.

The administrations in Bulgaria, Slovakia and Slovenia have also recently announced plans to sell off minority stakes in their telecoms operators, although it is not clear how much these are being driven by a need for cash and how much by a desire to implement a more liberal telecoms strategy.

While the growth potential in the fixed-line and cellular telephony sectors remains large, the problems of tapping this potential are significant.



Leading the way, the Czech Republic has been among the first to sell stakes in its national operator

A common pattern across eastern Europe has been to retain operators' monopolies on the long-distance and international markets and to initially open up local services to competition - regional licences have been awarded in Hungary, Poland and the Czech Republic.

In Poland, for example, TPSA's monopoly of the long-distance market will probably be retained until 2002 and the international monopoly even longer, in order to prop up its value.

Meanwhile, fixed local-network licences were awarded

as early as 1990, although the predominantly small-scale operations have so far made little impact on the market. The new licensees have complained about high interconnection fees and a lack of co-operation from the national operators.

More inroads may be about to be made in the Hungarian market, where the two largest independent local operators - one owned by a subsidiary of French company Compagnie Générale des Eaux (CGE), and the other by US-based company HTCC - signed contracts

with Ericsson in July for the implementation of large scale fixed radio access networks based on the advanced Digital European Cordless Telecommunications standard.

These independent operators are committed to increasing their line totals by almost 20 per cent a year and so have turned to radio access technology for a quick solution.

According to telecoms consultants CIT, one of the biggest risks for outside investors in eastern Europe is the unpredictable behaviour of governments and state-owned telecoms operators.

For example, France Télécom and Ameritech are still seeking compensation from the Polish government after missing out on a GSM licence earlier in the year.

Attracting capital through joint ventures is an alternative to privatisation, although joint ventures have tended to be confined to projects targeted at the business community, such as digital overlay networks, satellite links and mobile services. Western financial institutions have been ready to fund these kinds of value-added services because of the relatively quick returns that can be made on them.

Cellular joint ventures are plentiful across the region, contributing to that sector's

rapid expansion. According to FT Mobile Communications estimates, the number of cellular subscribers in eastern Europe grew by over 88 per cent during 1995, by comparison to about 59 per cent in western Europe. The number of subscribers now stands at about 750,000.

Average penetration levels are still low by western standards but are rising fast - Hungary now has more cellular telephone users per head than does Belgium.

Users are expected to expand rapidly as more licences are granted. Most east European countries now have a cellular network based on the NMT-450 analogue standard, but a rash of more advanced GSM digital standard licences are being awarded to stimulate competition and boost service quality.

Whereas two years ago there were practically no digital cellular systems in the region, there are now 10 GSM networks in operation. Since the beginning of the year two GSM licences have been awarded in Poland and two in the Czech Republic and further GSM licence awards will soon be announced in Romania and the Slovak Republic. A second wave of digital licences based on the DCS-1800 standard is also anticipated in the near future.

National operator	Turnover (\$m)	Pre-tax profits (\$m)	Number of main lines	Main lines per employee	Year
1. Telekom Polska	2124.48	361.07	5,727,687	78.29	1995
2. SPT Telecom	999.51	288.45	2,490,000	62.03	1995
3. Matáv	941.00	212	1,882,991	108.42	1995
4. HPT Croatia	848.47	98.81	1,146,000	88.21	1994
5. Romtelecom	847.08	100.77			1994
6. Telekom Slovenije	818.27	52.00	2,805,000	88.93	1994
7. Slovak Telekom	807.00	15.74			1994
8. BTV	288.23	118.50	1,118,000	72.78	1994
9. LST	188.26	46.80	2,487,000	95.54	1994
10. LST	118.24	8.00	764,000	108.14	1994
11. Lietuvos Telekomas	111.25	25.00	941,000	94.48	1995
12. Eesti Telefon	70.94	5.85	411,000	100.54	1995
BT	22,082.00	4,228.00	27,070,000	198.90	1994/95

* The profit figure for Telekom Polska is net profit. 2. Telekom Slovenije supplies the figure ready converted from local currency to US\$ at the rate of 1995 US\$1 = 236 Slovenian Tolar. The profit figure for Lietuvos Telekomas is 'adjusted' profit rather than pre-tax profit. The figures for the figures are all supplied by the operators and converted to US\$ at the 1995 average exchange rate. Source: CIT Group

■ France: by David Owen

Flagship's new course

Sweeping change is on the way following the passage of two liberalising laws

The passage of two new laws has made 1996 a landmark year for telecoms in France. One allowed for the conversion of France Télécom from an arm of the state administration into a joint stock company, paving the way for the sale early next year of a first batch of the telephone operator's shares. The other set out a new regulatory framework for the country's FF117bn (\$14.81bn) telecoms market, which - like other EU markets - is to be opened to competition in 1998.

"This date will mark an unprecedented opening of the telecommunications market," says Jean-Marie Messier, chairman and chief executive of Compagnie Générale des Eaux, which hopes to use the new regime to branch out into fixed telecoms markets. "In a single step, the 90 per cent of the market that is inaccessible today will be opened to competition."

The France Télécom reform was expected to trigger hostile reaction from trade unions worried about the effect of partial privatisation on jobs. But their protest fizzled in the face of government assurances that the company would continue to give its employees civil servant status, with accompanying job security rights, until 2002.

As it turned out, the government had more trouble from the opposition Socialists and Communists, who fought the plan vigorously, submitting 500 amendments and forcing prime minister Alain Juppé to resort to a special parliamentary "guillotine" procedure to push the bill enshrining it through the lower house.

The reform, under which France Télécom is due to be incorporated on January 1 1997, should enable the group to seal strategic alliances and strengthen its competitive position. It should also enable it to raise funds for the massive investments required in the developing markets of telecoms and multimedia.

The government has promised to retain a 51 per cent stake in the world's fourth-largest telecoms operator in terms of 1994 turnover, with up to a further 10 per cent reserved for employees.

BZW, the UK investment bank, recently valued the group, which last year made net profits of FF9.2bn on sales of FF147.8bn, at FF147bn. It said the company scored well on "simple efficiency measures", such as lines per employee and labour efficiency.

It said the group had high penetration, with 56 lines per 100 population, and a fully digitalised network, future expenditure could be "geared towards services and increasing line usage". The new regulatory frame-

work requires the establishment of an independent regulatory authority, to be set up from January 1 1997. This body will supervise rules fixed by the government, which will retain the right to licence new operators from January 1 1998, when complete liberalisation takes effect. The reform makes France Télécom responsible in the first instance for a universal service, defined as providing an affordable national service with no price discrimination based on geography. Much of the detail remains to be worked out, however. The level of interconnection charges for new operators could be a bone of contention.

The government has spelt out five guiding principles behind its reforms:

- Guaranteeing a quality public service for everyone;
- Guaranteeing users simple access to more services;
- Creating an environment favourable to the development of competition;
- Developing France Télécom's competitiveness and
- Ensuring fair competition through the creation of an effective regulator.

Ministers also hope that more jobs and cheaper calls will result from the advent of competition. Indeed France Télécom has already implemented two rounds of price cuts this year. François Fillon, telecommunications minister, recently suggested further reductions in tariffs would be made before 1998.

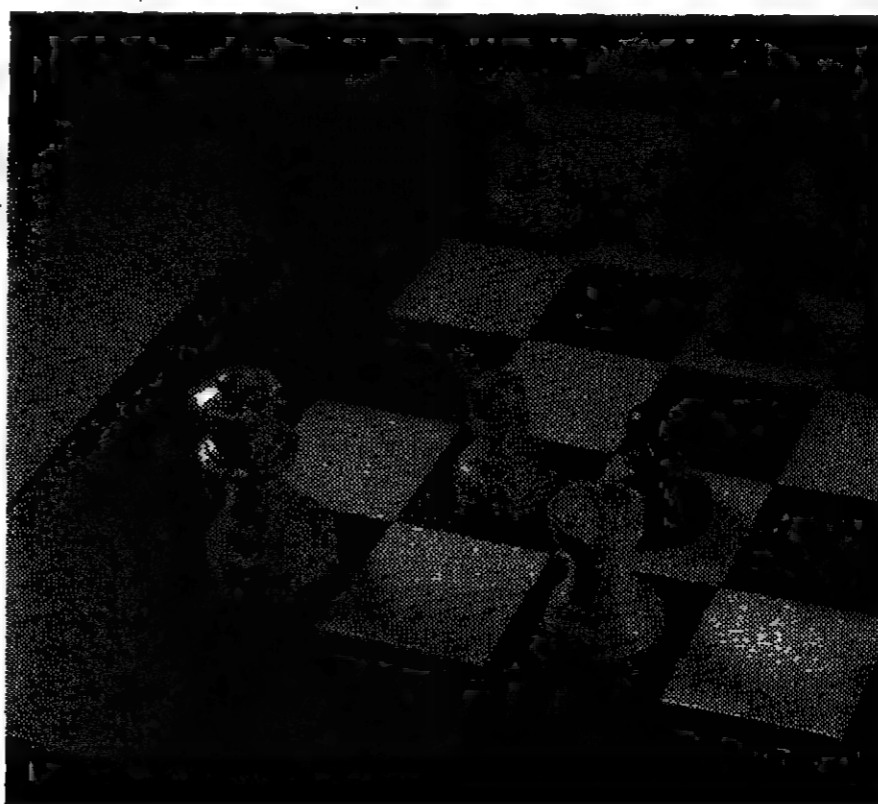
Competition has already started to creep into certain segments of the French market. In May, MFS Communications, a US-based telecoms company, announced the link-up of its first corporate client to a 20km optic fibre network in the Paris sewers.

Competition is also entrenched in the buoyant mobile market, where the two established operators - France Télécom and Générale des Eaux - were this year joined by Bouygues, better known for its construction activities and interest in the TFI TV channel.

At just over 1.8m at the end of July, the number of mobile subscribers is still low in France compared with other western European markets, partly because phones tend to be viewed as business tools, with services priced and packaged accordingly.

Bouygues' arrival on May 30 with a network that operates at the 1,800MHz frequency range until recently reserved for the French defence ministry looks set to change all that. The company has described its market as "the general public", something that has been reflected in its early promotional campaign - expected to cost FF65m between June and September and has featured the slogan "Using the telephone is becoming a sixth sense" - and in the price at which its service is being pitched. By end-July, the new network had clocked up more than 22,000 subscribers.

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8 INTERNATIONAL TELECOMMUNICATIONS: JAPAN AND TAIWAN

Japan: by Michio Nakamoto

Technologies lead the way

While the sector trails others overall, mobile telephony has leapt ahead

In the past few years, deregulation and new technologies have supported the emergence of telecoms as one of the fastest-growing sectors of the Japanese economy.

The country's telecoms industry still trails behind the electric machinery, vehicles and electric power industries in terms of overall sales by type one carriers - operators that own their own network infrastructure. Sales amounted to ¥9,000bn in the year to March 1996, according to the Ministry of Posts and Telecommunications.

However, overall planned

investment by type one carriers showed the strongest growth among all industries in the last fiscal year to March 1996, climbing 27.8 per cent to ¥3,460bn, the ministry points out.

In particular, the mobile communications market has seen rapid growth in subscribers since deregulation was introduced and helped to reduce prices significantly.

Japan's mobile communications market grew 71 per cent to ¥2,400bn in the fiscal year to March 1996, according to the Ministry of Posts and Telecommunications. Japan is now the second largest mobile phone market after the US with 13m subscribers at the end of April this year - an increase of 81 per cent over a year ago.

Personal handy phones, which are a cheaper form of cellular phone, have also

spread rapidly, with subscriptions reaching 2m in the first 10 months after services were started.

The use of mobile communications tools is so widespread that it has become a social issue in Japan where the use of phones in public places such as on trains, in hotel lobbies and restaurants, is frowned upon. What is more worrisome, the Japanese police found that up to three quarters of the accidents that were reported in June occurred while the driver was trying to make or receive a phone call.

Such concerns, however, are hardly expected to halt the growth of the mobile communications market. This fiscal year, the telecoms ministry expects the market to grow a further 48 per cent to ¥3,500bn.

While the mobile market has shown spectacular growth, the fixed line market has been hampered by a lack of competition despite extensive deregulation measures introduced 10 years ago.

In particular, the lack of access rules in a market where the former national carrier, NTT, provides both local and long-distance services and dominates the local market, has prevented long-distance carriers from competing effectively.

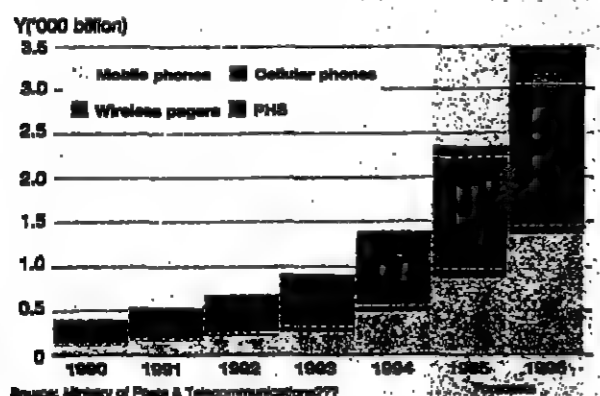
NTT has been able to charge its long-distance competitors high rates for access to its local network, a factor which has led to the high cost of long-distance tele-



While the mobile market has shown spectacular growth, the fixed line sector has been hampered by a lack of competition

Olyn Davis

Growth in mobile communications in Japan



Source: Ministry of Posts & Telecommunications/NTT

phony and other services in Japan. As a result, the cost of telecommunications in Japan has been kept high, many services have been kept from growing and "the average spend per head in the US [telecoms market] is 50 per cent higher than in Japan," points out Barry Dargan, industry analyst at SBC Warburg.

Before the end of this fiscal year to March, however, the government is expected

to take a number of measures which will go a long way towards resolving outstanding issues.

First, the government will draw up access rules based on the recommendation of an advisory panel which is due to be finalised next spring.

The difficulty NTT's competitors have had in competing successfully with the dominant carrier has stemmed to a large extent

from a lack of fair access to NTT's local network. Long-distance carriers have had to pay out close to half their revenues in access charges to NTT.

Tokyo Telecommunications Network, a regional phone company operating in the Tokyo area, has not been able to grow its business due to its lack of the final link into customers' homes, which is dominated by NTT.

Although TTNet has an extensive network linking long-distance and local switches, without the connection to homes, either the company or subscribers were obliged to pay the cost of laying that line, which is prohibitively expensive and wasteful. NTT, meanwhile, had shown little interest in providing TTNet with the required link.

Under the threat of divestment, NTT itself declared a policy of providing open access to its network, last autumn.

TTNet plans to take advantage of this new policy and, in early 1998, start to provide local and long-distance phone services at rates lower than those currently charged by other operators.

Long-distance and international call services will be offered by tying up with long-distance and international carriers. Kanto Fuji-mori, president of TTNet, was quoted last year as saying that with access to NTT's network, the company can aim to win 4m users, or 20 per cent of the Tokyo regional market in the next

10 years. However, the telecoms ministry believes NTT's stated policy will need more than the company's own private initiative to be effective.

By drawing up access rules, "we are trying to create a framework for NTT to provide open access to its [local] network that would include an incentive for, or some form of pressure on the company, to do so at low rates," says Eikichi Tanaka, a senior adviser to the telecoms ministry.

Secondly, the government plans to deregulate the leased line market to allow each end of privately leased lines to be connected to the public network.

Deregulation of the domestic leased line market could take place as early as this autumn, making it possible for companies that do not have their own lines to provide telecoms services to a general public.

At the same time, the government is working towards bringing forward deregulation of the international leased line market, which is expected to have a tremendous impact on competition in that market.

By next spring, the telecoms ministry is also expected to remove barriers separating long-distance and international business, following removal of the boundary between local and long-distance markets.

The ministry plans to ask for a revision of the KDD law to allow the international carrier into the domestic market. Until now,

Japan has been unique among industrialised countries in separating the international and domestic telecoms businesses.

The removal of that distinction is likely to prompt alliances, if not outright mergers, between international carriers, such as KDD, and long-distance carriers, such as Japan Telecom, which in turn will help to realise lower rates, says Mr Dargan.

By the end of the year, a government decision is also expected on the status of NTT. This is a major issue that has been left undecided in spite of the recommendation by a government advisory panel that NTT should be broken up into a long-distance company and local carriers to stimulate competition.

As these decisions take shape, they are expected to usher in important changes to Japan's telecoms industry. A decision on NTT's status, for example, will give foreign carriers looking for a Japanese partner a more solid basis upon which to base their decisions. Japanese carriers that do not know what kind of carrier they will be competing with in a few years time will have a better idea of their competitive environment.

Japanese carriers will also have a clearer idea of their priorities concerning overseas markets and alliances at home. The next few months will be crucial in laying the foundations for an extensive restructuring of Japan's telecoms industry.

Taiwan: by Kris Szanlowski

Asian tiger sharpens its claws

Partly as a result of international pressure, the state is liberalising its telecoms industry

Having lagged behind its neighbours in recent years, Taiwan took a big step forward at the beginning of this year by legislating to open up its telecoms market. In a bid to extend its position as a regional business hub, Taiwan is putting the finishing touches to a series of tenders which will deregulate telecoms in this tiger economy.

The monopoly on switched voice traffic will probably remain in place until 1998 but the liberalisation of other fixed traffic markets, such as data, is expected by the middle of next year and all mobile services are in the process of being deregulated.

Foreign investors are lining up to bid for a total of eight new cellular licences, eight paging licences and up to 30 licences for other wireless services. In this feeding frenzy the cellular licences are attracting the greatest interest.

The tender details have yet to be finalised. In the latest development, the Taiwanese government bowed to lobbying from Washington by deciding to raise the threshold of foreign ownership in domestic telecoms ventures to 49 per cent rather than the 30 per cent that it had proposed in May. The Taiwanese are open to

pressure as they are dependent on US backing in their bid to join the World Trade Organisation.

Powerful US companies which are among the foreign companies planning to bid for the lucrative digital cellular licences - such as AT&T, AirTouch, South Western Bell, Sprint and Nynex - are also lobbying their government to exert pressure on the Taiwanese authorities to drop the 11.5 per cent profits ceiling that it proposes to impose on all telecoms joint ventures.

The foreign ownership barrier may in any case prove not to be a limitation as the Taiwanese government has suggested that it will give it as favourable an interpretation as possible by extending the definition of what constitutes a local company.

Although Taiwanese investors will still dominate the various consortiums bidding for cellular licences, the new telecoms market will be far from the state-owned telecoms monopoly that existed until recently.

With cellular penetration currently standing at a mere 3.5 per cent by comparison with about 12 per cent in Hong Kong, the Taiwanese have a lot of catching up to do with equivalent economies. With a per capita gross domestic product of about \$2,000, Taiwan has a cellular penetration lower than Malaysia's, which has a per capita GDP of only about \$4,000.

The waiting list for the current GSM cellular service

operated by the FTT may be as high as 400,000, illustrating the extent of pent-up demand and the opportunities awaiting new operators. Expansion has been held back by slow infrastructure roll-out and inadequate capacity.

As the national operator had attracted 170,000 customers by the beginning of this year to a GSM network that was only launched in early 1995, and is currently attracting as many as 40,000 net new GSM subscribers each month, this would suggest that customers are out there for the taking.

The total cellular market - including analogue subscribers - was about 770,000 strong at the beginning of the year and some analysts expect to grow to 4m by the end of the decade.

The government has chosen the GSM and DCS-1800 European-originated digital technologies for the eight cellular licences. Three regional GSM and three regional DCS-1800 licences will be awarded possibly before the end of the year, as well as one or two national DCS-1800 licences. It is not yet clear if one of the national DCS-1800 licences will go to the state-run national operator.

The state-run national operator, Directorate General of Telecommunications, is being restructured as the corporate Chung Hwa Telecommunications, probably as the first step towards selling bits off to outside investors.

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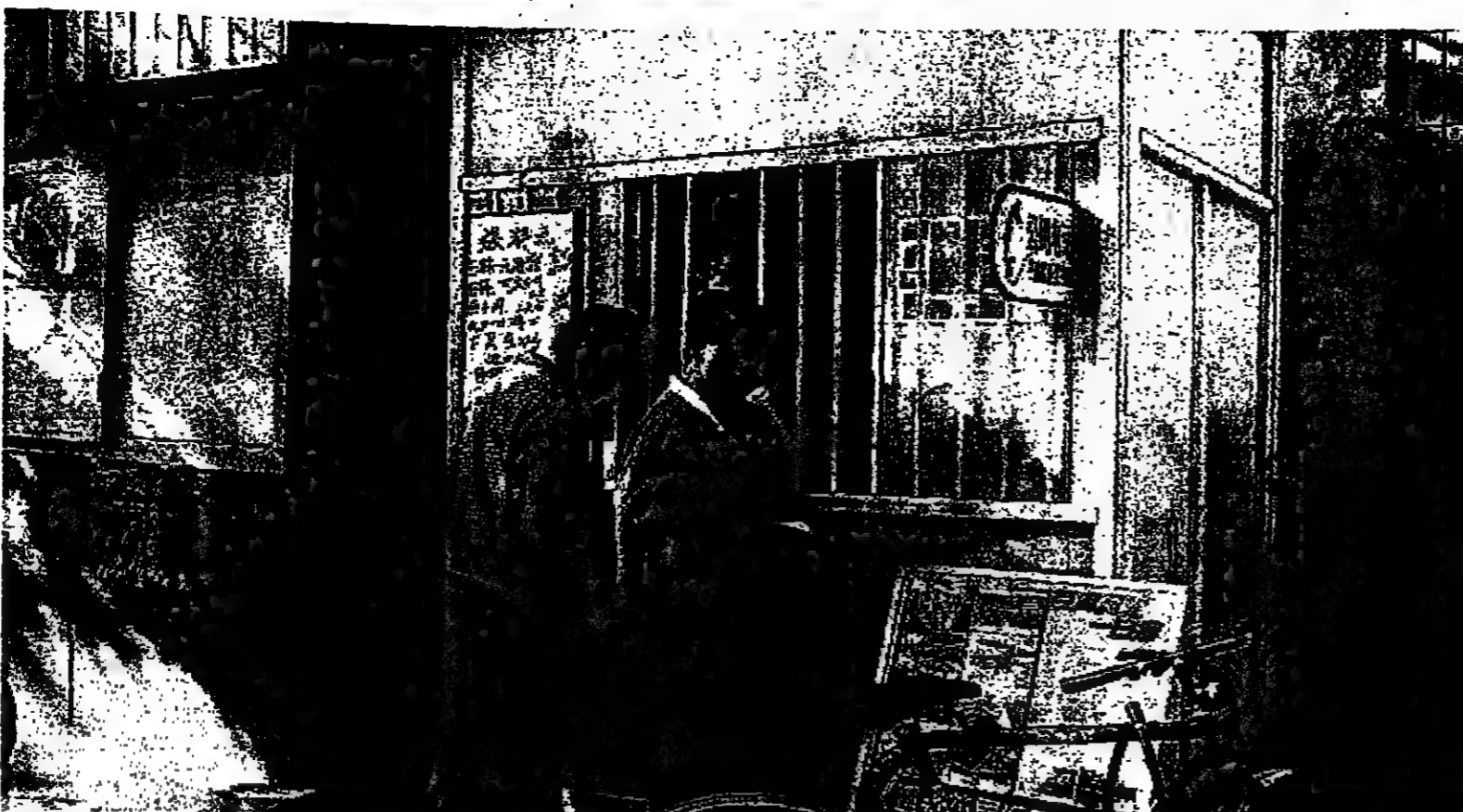
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Tomorrow he'll be using a mobile: demand is such that the authorities are considering shifting development from fixed-line networks towards cellular networks

China: by Tony Walker

The bamboo superhighway

Beijing plans to spend much of its telecoms budget on laying fibre optic cable

Extraordinary growth in cellular mobile phone ownership in China is just one aspect of an explosion in the telecommunications sector which includes the spread of telephone services, availability of cable, plans for an information superhighway and increasing resort to use of satellite communications.

Under China's Ninth Five Year Plan (1996-2000) the country plans to spend Yn500bn (\$61.7bn) on its telecoms by 2000, about two-thirds of which will go to building exchanges and laying 300,000km of fibre optic cable. The Chinese have set themselves the ambitious target of adding 64m new subscribers to the present 41m. Exchanges capacity would double to 170m lines.

As part of the plan, telephone density rates will rise from 4.66 per 100 people at the end of 1995 to 10.5. In the cities, the figure will increase from the present 13 sets per 100 to between 30-40. That rate of increase for a country with a population of 1.2bn would involve adding the equivalent of half the number of UK lines each year to China's capacity.

Wu Jichuan, minister of posts and telecommunications, said recently that investment in China's telecoms would continue to grow at a rate of about 40 per cent annually to the year 2000 - an extraordinarily high growth rate by any standards.

Plans involve constructing eight horizontal and eight vertical trunk lines covering the whole country. Extension of telecommunications

services to remote areas in China's hinterland has become a priority under the latest five year plan which aims to redress development imbalances between regions. Funding for this ambitious programme will come equally from installation fees for the 18m new lines added annually, from high rates of depreciation on the MPT's assets which total about Yn260bn and from loans.

These include commercial banks, assistance from international lending institutions such as the World Bank and credit guarantee-type funding through institutions such as the Export Credits Guarantee Department, the UK credit agency, Coface of France and Hermes of Germany.

Mr Wu defended China's decision to exclude, for the time being, foreign companies from involvement in the actual operations of China's telecommunications system, saying conditions were not yet right. But he hoped that by 2020 the Asian Pacific Economic Co-operation (APEC) forum target of open telecommunications throughout the region could be met.

"In China we are trying our best to make conditions right so that foreigners can take part in operations of telecommunications. We'll do our best to make conditions right to comply with APEC," he said.

Mr Wu said one of the constraints on foreign participation was the fact that foreigners would only be interested in the eastern areas where demand was concentrated, and would have little interest in the sparsely-populated western regions.

But he added that foreigners were not prevented from being involved in the actual

construction of networks "in ways acceptable to both sides". Foreign companies were not precluded from equity investment in such ventures with a "fixed rate of return".

One area which has been eyed covetously by international telecoms giants is the cellular phone sector. This is not surprising given the extremely rapid spread of mobile phones. The official China Daily reported recently that China Telecom, a subsidiary of the ministry of posts and telecommunications, was poised to become the world's largest mobile phone operator within a year.

At the end of 1995 China Telecom had 3.6m customers. By June, that number had risen to 5.1m, and is expected to reach 7m by the end of the year. At that point, China Telecom will have passed AT&T which presently has most subscribers.

Indeed, such is demand for cellular phones that the authorities are considering

shifting emphasis from developing urban fixed line telephone networks to expanding the mobile network instead.

Foreign companies, including Motorola of the US, Nokia of Finland and Ericsson of Sweden are producing mobile phones in China. Motorola plans to invest \$20m by the year 2000, producing communications equipment, including cellular phones and pagers. The number of pagers in use in China reached some 20m at the end of last year, making China the world's largest pager market.

China is also looking well beyond 2000. The MPT is forecasting that by the year 2010, 400m lines would be available, more than double numbers at the end of the century. In addition, a "broadband integrated digital network" would be in place to provide interactive multimedia services in the cities and coastal regions - China's version of the superhighway.

China is now constructing

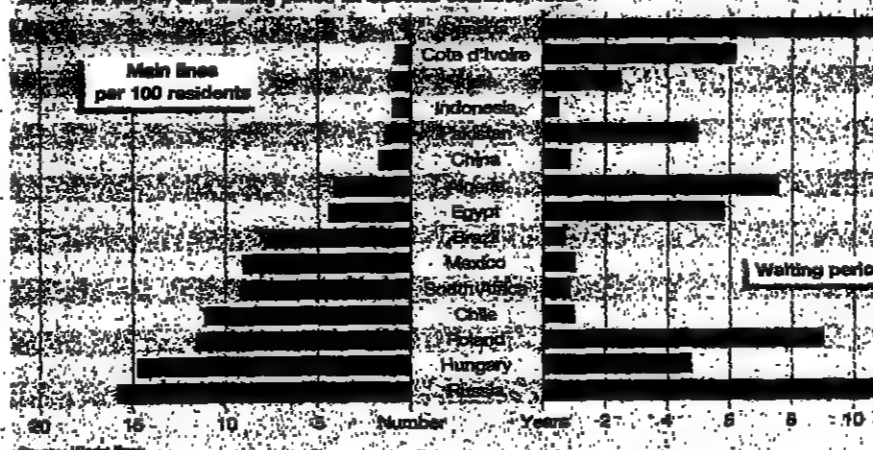
what it describes as its "Three Golden" projects, consisting of the Golden Bridge, Golden Customs and Golden Card. The Golden Bridge scheme will provide "superhighway" communications between ministries, state organisations and companies; the Golden Customs project will upgrade radically customs service communications to facilitate clearance of goods; and the Golden Card project is aimed at developing China's credit and debit card systems.

China is also plunging heavily into the development of its cable networks. In 1990, the country's subscribers to cable totalled 18m households. At the end of July this year numbers of subscribers had swelled to 46m out of a television-owning population of about 250m households.

By 2000 that figure is expected to reach 80m, making China easily the biggest cable television market in the world. In China's telecommunications sector the sky, it seems, is the limit.

Telecommunications services widely in developing countries

Below are capacity and waiting periods for selected countries, 1995



Pakistan: by Farhan Bokhari

Giving out mixed signals

The market's prospects have been dogged by delays in selling state-run PTCL

Two contrasting images define Pakistan's telecom sector. One is the vision of a huge market with opportunities for expansion. But this optimistic picture is set against growing concerns over the country's failed efforts to begin the privatisation of the Pakistan Telecommunications Corporation (PTCL), the monopoly telephone company, since the government first decided to privatise it more than four years ago.

The delay has been caused by a variety of reasons including security concerns, pricing of the company and political uncertainty which has dampened investor interest. Many potential investors, therefore, may have good reason to believe that Pakistan is in no rush to privatise the sector and open it up to foreign or domestic investment.

The initial two-year delay was caused by objections from the country's defence forces who argued that the takeover of the PTCL by a private management would harm security interests.

The government subsequently gave assurances

that part of the money raised from the sale would be used to set up an alternative "secure" telephone network for the use of government and defence officials. However, despite such assurances, worries continued and were added to by concerns the sale of PTCL would not raise enough money.

More recently, worsening political and economic trends in Pakistan have added to anxieties among officials and businessmen, many of whom believe plans to privatise the PTCL may suffer further delay.

"You have growing anxieties over the political future of prime minister Benazir Bhutto's government and you have worries over the country's economic trends. The combination of these two may hurt the chances of PTCL's privatisation," says a senior western economist in Islamabad.

In recent weeks, however, many officials have drawn comfort from reports that a newly emerging Dutch-Indonesian-Pakistan consortium may enter the race and offer up to \$2bn for 26 per cent of the company's shares. The consortium wants to sell the government stock to an individual private investor or a consortium along with a transfer of the company's management.

The government's privatisation commission in Islamabad

had announced that Setiawan Djody, chairman of Stedco group of Indonesia, J.B. Voibeda, president of PTT Telecom Netherlands, and representatives of Shaheen foundation, a newly emerging Pakistani business group, verbally expressed interest in bidding for PTCL after discussions with government officials.

In a separate announcement, the consortium could offer up to \$2bn to buy the 26 per cent shares. That announcement helped to remove some of the anxiety triggered by earlier reports that AT&T had decided not to put in an offer after reviewing PTCL's performance and growth prospects.

This July, PTCL announced that its annual revenues for the year to July 1995-June 1996 had exceeded a target of \$25bn (\$978m), but did not indicate by what margin.

The company has set itself an ambitious revenue target of \$44bn for the current fiscal year ending in June next year. The company has so far not given a figure for its pre-tax profits for the last fiscal year though many analysts say that it would be 7 to 12 per cent higher than the previous year when pre-tax profits were \$16.635bn.

Prospective investors have been promised measures

which would ensure continued profits. The contract for the 26 per cent share privatisation would include clauses committing a seven-year monopoly on rights to provide basic telephone services in Pakistan as well as a 25-year renewable licence to provide a full range of telephone services.

The company also says that its prospects for growth remain attractive. PTCL has so far provided connections to 2.48m subscribers and still has capacity to serve another 670,000. Recent expansion in PTCL's capacity has raised the average availability of telephones to Pakistani subscribers to 1.76 phones per 100 people up from fewer than 1 per 100 in 1992.

The company has also recently taken steps to modernise its services, with moves such as the introduction of on-line Internet access for subscribers and a facility allowing companies to connect to national nine-digit universal access numbers, similar to the 800 service in North America.

Some analysts are positive on PTCL's growth prospects. Aaliya Dossa, analyst at Crosby securities' offices in Karachi says: "In such a large country where there is growing demand, you'll see the PTCL making more money in the future".

Nasir Bukhari, head of

Karachi's Khadim Ali Shah Bukhari and company, a large brokerage firm says: "In spite of the uncertainty, PTCL's privatisation is bound to get going in the next few months." However, he adds, the pricing may remain an issue because prospective buyers are likely to make bids which are lower than those envisaged by the government. The government has so far not announced how much it wants for the 26 per cent share.

Many other analysts say conditions in Pakistan's leading stock market in Karachi may be crucial to the PTCL's future. Ten per cent of the PTCL's shares were placed on the markets in Pakistan and overseas, two years ago, when the government decided to sell part of the company's equity prior to a takeover by a private management.

The share prices have fallen by more than 40 per cent from their peak largely due to political and economic uncertainty in Pakistan, which has pushed down the stock market's index.

Many analysts say that a dispute over the pricing may be triggered if prospective buyers use current share prices to assess the value of the stake while the government may expect to sell those shares at a higher price.

India: by Eden Zoller

Rich returns for patient investors

Despite its potential, red tape and swings in policy deter many operators

For foreign investors, the Indian telecoms market is a tantalising one. Its potential is huge, with expectations that revenues generated will reach about \$250bn (\$10bn) by 2000. And with the country's penetration rates and service standards some of the lowest in the world, the government - determined to upgrade the sector but with a limited budget - is turning to overseas investment. But foreign operators finding the licensing procedure marred by red tape, political infighting and changes in policy, have become disillusioned and some - BT, for example - have pulled out of the race altogether.

With a population of almost 1bn, India has only 12.9m installed lines, the penetration rate for fixed services is an extremely low 1.3 lines per 100 people, and in spite of installing a record 1.7m lines last year the government cannot keep up with demand. The waiting list is between 2.5 and 3m.

The government aims to increase the penetration rate to six lines per 100 people and to provide at least one telephone in all of India's 600,000 villages.

Cellular services, introduced in India only in 1994, are limited to two GSM networks in each of the country's major cities: Delhi, Bombay, Madras and Calcutta. The GSM operators are all joint ventures between local groups and foreign investors, and unlike the market for fixed services, the cellular market is closed to the national operator.

The government moved to liberalise fixed services and further open up the cellular market last spring, when it carved the country into 21 regional licensing zones and issued tenders for two cellular licences in each zone and one licence for basic fixed-line services in each zone.

Concessions are classed according to the relative attractiveness of an area in terms of business potential.

Five top ranked class A licences cover Andhra Pradesh, Gujarat, Maharashtra, Tamil Nadu and Karnataka. Class B licence areas are Haryana, Kerala, Madhya Pradesh, Punjab, Rajasthan, Uttar Pradesh East, Uttar

Pradesh West and West Bengal.

Class C licence areas are Assam, Bihar, Himachal Pradesh, the North East and Orissa. Bids have been placed in all areas except the Andaman and Nicobar Islands and the conflict-ridden state of Jammu and Kashmir.

Foreign companies have been allowed to enter the market via joint ventures in which they can hold up to 49 per cent. Tenders attracted US and European heavyweights including Stet of Italy, Swiss PTT Telecom, Bell Canada, Nynex, US West, Moscow Telecom and Bezeq of Israel.

However, the tender process was thrown into disarray last November when, after the first round of bidding was completed, the government abruptly announced that it would place a cap on the number of licences any one operator could hold.

A single operator can only hold three licences in the grade A and B circles, although there is no limit on the less attractive C circles.

On the cellular side, the US West-BPL and the Modi-com alliance were forced to give up some of the licences for which they were originally in line.

The cap caused an outcry among bidders and provoked the opposition party to accuse the government of imposing the limit to prevent one of the bidders from making a mockery of its policy of using private investors to fuel the development of basic services.

The bidder in question was the alliance of local group Himachal Futuristic Communications Limited (HFCL) and Israeli national carrier Bezeq. The HFCL-Bezeq alliance bid much higher than any of its rivals and was in line to scoop up nine of the 11 licences for basic services.

HFCL-Bezeq bid \$28.58bn for the nine licences, and there was concern that the group would be unable to fund the development of services in all nine franchisees. A failure of this sort would have been embarrassing for the government, robbing local people of the services they had been promised.

The cellular licences for the 18 zones where bids were placed was settled in January, but the award of the licences for fixed-line services was not resolved until the spring. The tender for basic services was not only hit by the imposition of a

licence cap but also by the introduction of a reserve price after the second round of bidding.

Groups such as US West-BPL and AT&T Birla were so disenchanted that they simply dropped out altogether. The reserve prices were controversial, particularly as it was unclear exactly how they had been calculated. US West argued that reserve prices were too high, and could not be justified given the amount of investment needed and the likely returns.

In the event, the second round of bidding saw a marked decline in enthusiasm with only six bids placed and nine regions failing to attract a single offer. The lack of interest in the nine regions made a third round of bidding necessary and forced the government to reduce the reserve prices to attract interest.

Although the regional licences for basic services have all been awarded, the dust has not yet settled on what was a confused episode.

The operators are now trying to thrash out acceptable interconnection rates for access to the national network, a process proving so problematic that the operators have successfully lobbied for a six week extension to the original July 31 deadline for deciding the matter.

However, the signs are that once the parameters have been mapped out progress will be rapid. The cellular operators are moving quickly and most have already placed orders for network infrastructure.

Fixed-line operators could be as quick off the mark once interconnection rates have been established.

In addition, in spite of the hurdles, India's ambitious telecommunications liberalisation policy has generated market reforms in a short space of time. For example, while the country's first cellular services were introduced in four cities in only 1994, by the end of last year together they had about 60,000 subscribers.

Merchant bank Salomon Brothers reckons that the new wave of entrants to the cellular market will swell the customer base to 3m by 2000, generating revenues of up to \$3bn. For those prepared to face the hurdles, the overall picture is more positive still, with total telecoms revenues expected to climb from \$2.7bn at the end of 1995 to \$10bn by 2000.



Low penetrations with a population of almost 1bn, India has only 12.9m installed lines

Tony Anderson

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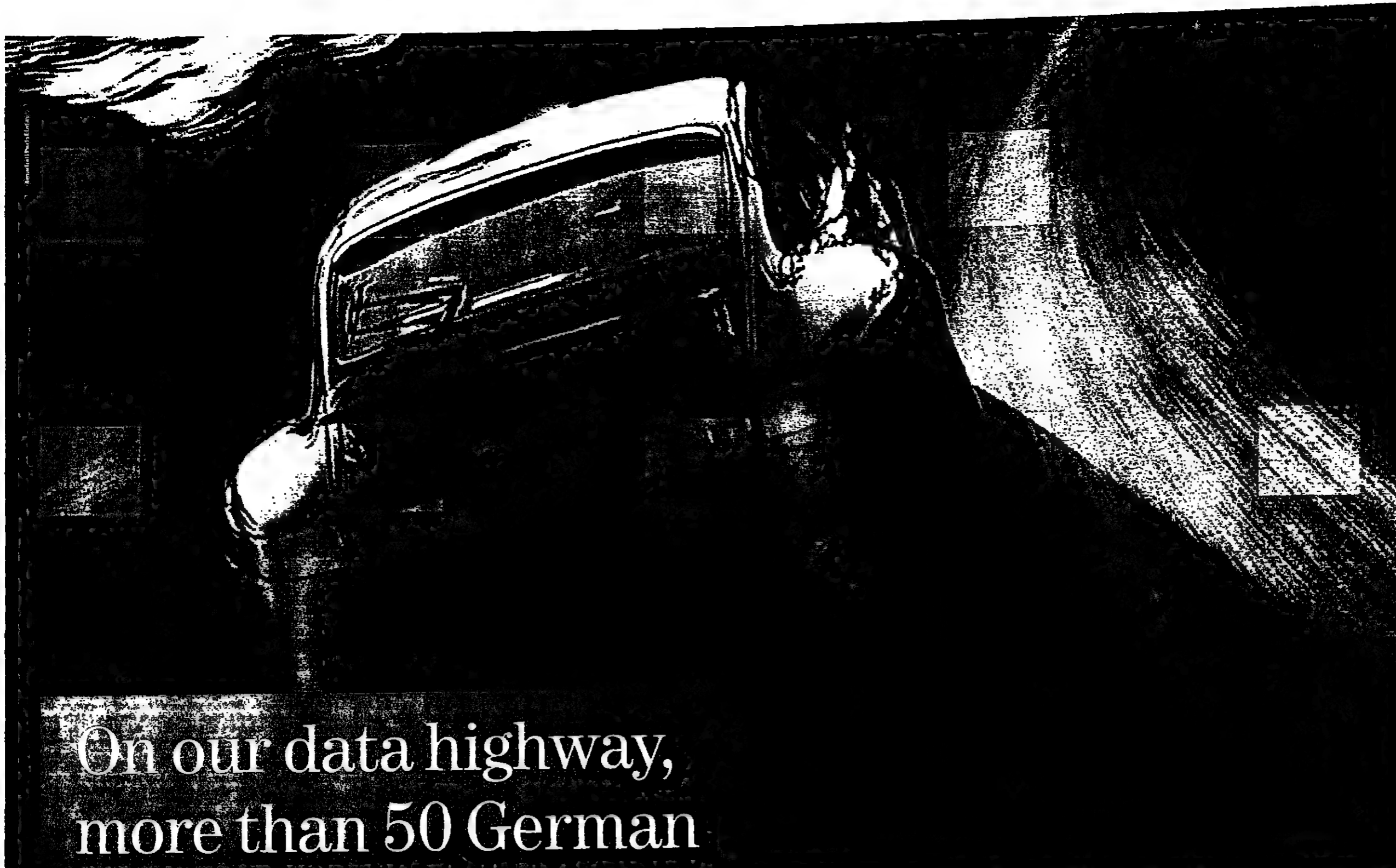
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IN BRIEF

PepsiCo moves to boost top team

PepsiCo, the US soft-drink and fast-food company that has been hit by a series of setbacks, surprised Wall Street by bringing in Mr Karl von der Heyden, a consumer industry heavyweight, to beef up its management team. The company said it had appointed Mr von der Heyden to the posts of vice-chairman and chief financial officer and had nominated him for election to the board. As chief financial officer, Mr von der Heyden replaces Mr Robert Detmer, who is retiring at 65. Page 18

Bertelsmann moves away from pay-TV
Bertelsmann, the German media group, said it was scaling back its digital pay-TV activities in the wake of recent setbacks in the German market. These include the decision earlier this week by Deutsche Telekom to quit MMBG, the digital pay-TV venture in which Bertelsmann has a share, and the recent merger between Canal Plus, the French broadcasting company, and NetHoll, a pan-European pay-TV group. Page 18

Ansett sale given qualified go-ahead
The Australian government has approved the A\$476m (\$375m) acquisition of a half-share in Ansett, the Australian airline, by Air New Zealand - but with conditions that will force a new shareholding structure. Page 17

Charges push Hunting into the red
Hunting, the UK defence, aviation and oil services group, announced its first losses for more than a decade after writing off \$40.5m (\$63.18m) on its aircraft interiors business. Page 19

Next shares slip despite rise in profits
Strong high street demand and the growing popularity of home shopping helped Next, the UK retail group, post a 13 per cent rise in pre-tax profits to \$56m (\$87.4m) in the six months to the end of July. However, disappointment among some analysts over the rise in like-for-like sales, concerns over consumer recovery, and profit-taking combined to knock shares down 25p to 578p. Page 20

Unilever puts £15m tag on Lloyds bid
Unilever, the worldwide retail pharmaceuticals group, admitted its attempts to capture Lloyds Chemists had cost nearly \$25m (\$39.6m) so far. Most of the costs have come from underwriting fees. Lloyds was also the subject of a bid earlier this year from Gaba, the German pharmacy group. Page 20

Biotech group optimistic on pig clone
PFL Therapeutics, the Scottish biotechnology company that genetically engineers sheep to produce medicines in their milk, said it hoped to clone pigs to provide a means of transplanting pig hearts, kidneys and possibly lungs into humans without risk of rejection. Page 20

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FRANKFURT (DAX)		
Alcatel	71.2	+ 2.5
Boehringer	348	+ 9
Deutsche Bank	108.5	+ 3.5
Wella	129	+ 29
Telekom	129	+ 19
YEN	471	- 9
LONDON (FTSE)		
Alcatel	157.4	+ 30
Boehringer	139.4	+ 23
Deutsche Bank	108.5	+ 3.5
Wella	129	+ 29
Telekom	129	+ 19
YEN	471	- 9
TOKYO (Nikkei)		
Alcatel	19.70	+ 1.5
Boehringer	11.05	+ 1.05
Deutsche Bank	13.00	+ 0.00
Wella	25.00	+ 1.50
Telekom	25.40	+ 1.25
YEN	23.50	+ 1.00
Alcatel	142	+ 8

Alcatel reveals plans for Thomson

By David Owen in Paris

Mr Serge Tchuruk yesterday broke his silence over Alcatel Alsthom's bid for France's Thomson, saying he wanted to turn the state-controlled electronics giant into the world's second-largest defence company. In an apparent attempt to halt the recent slide in the telecoms and engineering group's share price, the Alcatel chairman also promised that any deal would not be dilutive for Alcatel shareholders and would not worsen the company's debt-equity ratio. "We will emerge with a debt/

Chairman confirms bid submitted for entire group

equity ratio of less than 30 per cent," Mr Tchuruk predicted. "In other words, Alcatel is a company with very little debt." His comments had the desired positive effect on the share price, which rose FF711, or 2.9 per cent, to FF386.40, recouping most of this week's losses. But they prompted renewed speculation that the French state would need to recapitalise the heavily indebted Thomson as part of any deal. Ms Angela Dean, an analyst

with Morgan Stanley, the US brokers, said: "I continue to think there will be some debt write-off by the French government." She acknowledged that Mr Tchuruk's remarks on the bid had "given us some reassurance". The Alcatel chairman confirmed that the group had submitted an offer for the whole of Thomson - the money-draining multimedia consumer electronics subsidiary as well as the essentially profitable Thomson-CSF defence electronics arm. He suggested he

would be looking for partners for both parts of the Thomson business. In defence, he would seek to form "a wide-ranging partnership" with another leading European industrial group. It is widely expected that this would be Britain's General Electric Company, Alcatel's partner in the 50/50 GEC Alsthom power engineering and transport equipment joint venture. Mr Tchuruk said yesterday it was "logical" but not inevitable that GEC would be this partner.

On the consumer side, the aim would be to forge a partnership with "a major Asian electronics group". This would permit economies of scale while helping to compensate for Thomson's inadequate Asian market presence. The battle for Thomson pitches Alcatel against Lagardère, the French missiles-to-magazines conglomerate. Both groups submitted their final bids on Monday. The French finance ministry has said it would need several weeks to pick the winner and Alcatel is widely thought to have a slight edge. World Stocks, Page 36

UK-based telecoms group must 'sink roots deeper' in overseas markets

New C&W head puts emphasis on global reach

By Alan Cane in London

Mr Richard Brown, who has just completed his first quarter as chief executive of Cable and Wireless, the UK-based telecoms group, has emphasised his aim of capitalising on the fact that C&W has interests in some 50 countries. In his first extensive press interview since joining in July, Mr Brown said: "Wherever we are in the world, if we decide to stay there, we must sink our roots deeper and go after the market with more than a single service."

"If we are in mobile, we should consider what it takes to be in wireline and what it takes to be in data or video. Margins are better if you sell multiple services into a single market." Mr Brown also plans to seek greater synergies between Mercury Communications and Mercury One-to-One, the group's two UK-based subsidiaries. He said fixed line operators had no future without wireless capabilities, confirming that he intends to promote closer links between Mercury Communications, the fixed line operator, and Mercury One-to-One, the mobile business. He is also intent on raising Mercury's international profile. However, he aims to lift investment in Mercury without raising C&W's overall capital expenditure this year.

Mr Brown, 59 - the first American to head C&W - was formerly chief executive of HARBLOCK, the US tax preparation group better known as the parent of CompuServe, the online service provider. He was appointed to restore morale and direction to the company after the exit of its former chairman, Lord Young of Greenwich, and chief executive Mr James Ross. Mr Brown said his main priorities were revenue growth, improved efficiency and a revitalised corporate image. He aimed to concentrate on increasing the group's turnover without sacrificing profitability. "A healthy bottom line begins with the top line. The sustainable health of a business depends on recurring top-line growth." Where a product or service worked in one place, he would seek to use it elsewhere. Analysts are divided, however, on how effectively Mr Brown can transform C&W. Mr Andrew Harrington, senior analyst for Salomon Brothers in London, yesterday issued a "strong buy" note, arguing successful international operators will need strengths in each of the leading economies and that C&W's Asian interests - it holds almost 90 per cent of Hong Kong Telecom - makes it attractive to other carriers. Mr Harrington believed that Mr Brown would seek a strategic alliance or merger. Mr Laurence Heyworth, senior analyst at Robert Fleming, a seller of the stock, says the group faces severe political, regulatory and business risks. In particular, most of its profits come from Hong Kong



Going for growth: Richard Brown, C&W chief executive

Photo: Lydia van der Meer

Telecom, which faces an uncertain future after the UK hands the colony over to China next year. Mr Brown said his immediate priority was to ensure that the inter-

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Olympic Airways rebounds

By Kevin Hope in Athens

Olympic Airways, the Greek state carrier which is undergoing an EU-backed restructuring, posted net profits of Dr3.5bn (\$83m) in 1995, its best performance since it was sold to the state in 1974 by Aristotele Onassis, the Greek shipping tycoon. Olympic reported a Dr30m loss on operating revenues of Dr230bn the previous year, after writing off more than Dr20bn in debt under a state aid package approved by the European Commission. Operating profits last year reached Dr12.4bn despite a decline in revenues to Dr223bn, the result of a poor tourist season which saw a 10 per cent decline in visitors to Greece. However, the airline has been unable to secure the second Dr25bn tranche of a

Dr30bn capital injection, which was due to be paid in January, because of a dispute with the European Commission over government interference in its management. The dispute blew up in March when Greece's transport minister, Mr Haris Katsanides, sacked Olympic's chairman and managing director, Mr Rigas Doganis, appointed to oversee the three-year restructuring. The EC is expected to decide next month on the release of fresh capital. Analysts said the airline would have difficulty meeting this year's target of Dr17bn in net profits without the help of new funding, partly due to the poor tourist season. The EC said that although Olympic was making a satisfactory recovery, the government was continuing to interfere in its management, appointing board members both for the airline and its sub-

sidaries, granting extra pension payments to staff who accept voluntary retirement and insisting that Olympic maintain unprofitable domestic routes to small islands. "The government has also failed to lift Olympic's monopoly of scheduled domestic flights and of flights between Greece and third countries, which were both due to end last year." Under the restructuring plan, Olympic cut 1,500 out of 9,000 jobs, replacing staffing costs by more than 30 per cent last year, and also shut down several loss-making international routes. However, plans for slimming down the management and ordering new aircraft were frozen after Mr Doganis was sacked. Olympic's current management has postponed a decision on ordering new aircraft to replace its ageing fleet.

MG cuts ties with Young

By Nicholas Denton and Roger Taylor in London

Morgan Grenfell is expected next week to call in the Serious Fraud Office after concluding its investigation of the star-fund manager who brought embarrassment to one of the UK's leading investment management companies. Mr Peter Young, the fund manager suspended earlier this month for "suspected irregularities", was accused of "gross misconduct" and dismissed on Tuesday night, said Morgan Grenfell, the Deutsche Bank subsidiary. Morgan Grenfell had kept Mr Young on its payroll so that its in-house investigators and those hired from the accountants Ernst & Young could call on the fund manager

to unravel the intricate scheme he had mounted to mislead his managers. But the company has now cut all ties with its former employee because, it is understood, Mr Young had become less forthcoming in his answers and the investigators had obtained from him most of the information they needed. Morgan Grenfell refused to say when its preliminary investigation would be completed but the timing of Mr Young's dismissal suggests the company would refer the case to the Serious Fraud Office as early as next week. Mr Young was suspended after it was discovered he had set up a web of holding companies to disguise the scale of his investments in risky high-technology companies.

Mr Young's solicitors, Peters & Peters, have denied that he gained personally. The slide in British Biotech shares recently was due to the suspension of Morgan Grenfell Asset Management investment funds earlier this month, said Mr James Noble, the UK biotechnology group's finance director, writes Simon Kuper in London. Other shareholders are thought to have sold on fears that MGAM would dispose of shares in order to fund redemptions in the suspended funds. Mr Peter Young had a stake of about 5 per cent in two holding companies he had created. The shares gained 2p to 208p yesterday, down from 220p on September 4, the day details began emerging of Mr Young's holding.

TWA warns of profits downturn

By Richard Tomkins in New York

Trans World Airlines, the US airline that suffered the loss of one of its Boeing 747s in a mid-air explosion in July, yesterday warned that pre-tax profits would tumble in the quarter ending September.

It said the crash was only one reason for the downturn. Other factors included an over-ambitious expansion of domestic flights during the summer, pricing pressure caused by fare sales and higher fuel prices. TWA's profits warning comes just a week after American Airlines said its costs had risen by 4 per cent in the third quarter, boosted by higher fuel prices and the cost of extra security measures. American Airlines' announcement introduced a note of gloom to the US airline sector, which has recently seen strong profits growth amid rising passenger demand and higher fares.

TWA's share price was down only 3p at \$10.75 in early trading yesterday. But the day before it had slumped 31p to \$10.45 - a fall of 18 per cent - after Mr Glenn Engel, an analyst at Goldman Sachs, the Wall Street investment bank, published a gloomy report on the airline's outlook. Mr Engel predicted that TWA would report earnings per share of just \$1.20 in the quarter to September, down from \$3.18 a year earlier when TWA made net profits of \$76.5m before restructuring charges. TWA's flight 800 from New York to Paris crashed on July 17, killing all 230 on board. The cause has not yet been established, but sabotage has emerged as the most likely explanation. Yesterday, TWA said it had carried more passengers this summer than last, but the average fare paid had fallen, partly because of a loss of premium fare bookings on international flights after the crash.

Mr Jeffrey Erickson, chief executive, said: "Operationally and emotionally, this has been an extremely difficult summer for the people of TWA and, unfortunately, it now appears that we will see these difficulties reflected in third-quarter financial results."

This announcement appears as a matter of record only. JULY 1996

FF 640 million Management Buy-Out

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COMPANIES AND FINANCE: ASIA-PACIFIC

NZ airline given qualified go-ahead on Ansett

By Bruce Jacques
in Sydney

The Australian government has approved the A\$475m (US\$375m) acquisition of a half-share in Ansett, the Australian airline, by Air New Zealand - but with conditions that will force a new shareholding structure on the companies.

The Australian treasurer (finance minister), Mr Peter Costello, said the purchase,

from Australian transport group TNT, was subject to a number of conditions to ensure it complied with air traffic regulations.

He said if Ansett retained its status as a designated Australian international airline, its international operating arm, Ansett International (AIL), had to be substantially owned and controlled by Australians.

AIL would, therefore, be required to retain its head

office and operational base in Australia, with at least two-thirds of its board, including the chairman, to be Australian citizens.

Also, 51 per cent of AIL's capital must be owned by an Australian holding company - which will be called Holdco - and owned 100 per cent by Australian citizens.

No further details of the proposed shareholding or board members of Holdco were released, but Mr Cos-

tello said approval for involvement in the company would be subject to regulatory processes. Ansett will control the remaining 49 per cent of AIL.

Mr Ken Cowley, the chairman and chief executive of Ansett Australia, yesterday welcomed the government's decision.

Mr Cowley, who is also Australian head of Ansett's other 50 per cent shareholder, News Corporation,

said the government had faced a complex array of regulatory issues. He said he looked forward to early resolution of the Air New Zealand purchase.

The deal still has to be approved by a meeting of Air New Zealand shareholders, scheduled for September 27, which will also be asked to approve enabling funding arrangements.

Air New Zealand's chief executive, Mr Jim McCrea,

said the conditions appeared acceptable and workable.

The Ansett-Air New Zealand deal was first broached two years ago when News Corp signalled its intention to sell its Ansett stake.

Protracted negotiations ultimately foundered on price. However, within weeks, Ansett's other 50 per cent shareholder, TNT, was in talks to sell its stake. The deal has been dogged by regulatory hurdles.

ASIA-PACIFIC NEWS DIGEST

Merck and Chugai form OTC venture

Merck, the US pharmaceutical company, will team up with Chugai Pharmaceutical of Japan in a joint venture to develop and market over-the-counter drugs in Japan. The move will give Merck access to Japan's rapidly growing OTC drug market, which is the focus of government moves to cut health care costs.

Merck already has a Japanese pharmaceutical subsidiary - Banyu Pharmaceuticals, which concentrates on prescription drugs - which will not be affected by the tie-up. For Chugai, the agreement offers ties with a leading global drug-maker at a time when the government's cut in official drug prices is eroding profitability and partners are being sought ahead of a possible consolidation within the industry. Some foreign companies have taken leading stakes in small Japanese drug manufacturers.

Chugai will provide 70 per cent of the ¥2.5bn (\$22.7m) capital of the new company, which will be based in Tokyo. The joint venture will start operations next spring. *Smiko Terazono, Tokyo*

Pacific Andes launches IPO

Pacific Andes International Holdings, the Hong Kong listed company whose interests include frozen seafood and shipping services, yesterday launched the initial public offering of its newly spun-off arm, Pacific Andes Holdings. The company opted for a Singapore listing because of the city-state's position as an Asia-Pacific financial centre. Sixteen other Hong Kong companies have listings in Singapore, most notably the Jardine group of companies which delisted from Hong Kong in two stages, in December 1994 and February 1995.

Pacific Andes Holdings' activities are similar to those of its parent's. The listing is in two tranches, each of 30.625m shares at US\$0.57 each. One tranche is being sold by the parent while the other is made up of new shares. A total of US\$33m will be raised, although only half of this will accrue to the new company. Following the issue, the parent will hold 60 per cent of Pacific Andes Holdings.

Proceeds from the sale of new shares will be channelled into expanding processing capabilities, buying a plant in China, and developing own-label food products. *Louise Lucas, Hong Kong*

Orogen Minerals float priced

The Papua New Guinea government will float part of Orogen Minerals, the holding vehicle for its interests in the country's main resource projects, at A\$1.70 a share, raising A\$280m (US\$206m). Sir Julius Chan, prime minister, said the government would retain 51 per cent.

Orogen's interests include stakes in some of the world's largest gold projects, including 15 per cent of the Porgera mine, 20 per cent of Misima and 6.6 per cent of Lihir. Its assets, housed in the government-controlled Mineral Resources Development Company, also include 15.75 per cent of the Kutubui oil project and 20.5 per cent of the Gobe oil operation. A successful float would give Orogen a market capitalisation of A\$600m. It will also have the right to take up interests in new resource projects in Papua New Guinea. However, it appears the vehicle does not include the government's interests in the Ok Tedi and Bougainville projects.

The float will offer 158m shares, with residents offered a discount for the first 2,000. A global institutional offering will also be made through depository receipts. *Bruce Jacques, Sydney*

MasterCard takes the Chinese challenge

Credit card group sees the potential and the problems of this fast-growing market

Eugene Lockhart, president of MasterCard International, faces a question similar to the one confronting many chief executives dealing with China: what resources does one commit to a market which may be growing exponentially but is not yet providing returns that would justify a larger investment?

For many companies - including MasterCard - the Chinese market still requires a leap of faith. An uncertain regulatory environment, chaotic trading conditions and shifting consumer patterns make it difficult to plan and set targets.

But Mr Lockhart, a former chief executive of Midland Bank in the UK, believes it is in MasterCard's interest to make substantial additional commitments to China.

"We plan to make further considerable investment in China," he says, "both in terms of human resources and in money spent on publicity programmes and advertising."

However, he says there has to be a "critical moment" - the point when it is decided whether returns justify resources committed. "It is a challenge for every western company involved in China to balance market-building with achieving strict financial targets."

The explosion in the issuing of bank cards, the move to transform China from a "cash-based" to a "cashless"

society, the internationalisation of the economy, the huge potential growth in outward tourism as the Chinese become more affluent, and the changing attitudes to credit are all exciting developments for companies such as MasterCard, Visa and American Express.

In the 10 years since China's first yuan-denominated bank card was issued in June 1986, the number of cards in circulation has grown to 14.1m, and is expected to reach 200m by 2003. Transaction volume is also increasing dramatically, from just \$2.5m in 1991 to \$115.5m in 1995.

MasterCard has every reason to be satisfied with its penetration of the market. At the end of 1995, it accounted for 69 per cent of the market, or 9.8m cards. In terms of transaction volume, MasterCard represented 61 per cent, or \$71.7m. Its main competitor, Visa, holds about 20 per cent market share.

The potential of the Chinese market would seem difficult to ignore for a company like MasterCard. Transaction volume in China is already more than 10 per cent of its global figure of \$500bn, of which the US accounts for \$175bn. Numbers of MasterCard cards issued in China represent about 3 per cent of the company's \$40m total worldwide.



Eugene Lockhart plans further investment in China

But this is only the beginning, and China's moves towards currency convertibility will have considerable implications for companies like MasterCard. Initially, current account convertibility will be limited to foreign-invested enterprises, but gradually full convertibility will be introduced. The yuan will in time become an internationally tradeable currency, possibly by 2000.

In the meantime, foreign credit card companies will be hoping the authorities relax restrictions on Chinese citizens' access to credit cards that can be used internationally. As things stand,

Chinese who travel frequently are obliged to service such cards from accounts outside China. MasterCard representatives have told the authorities that rules discouraging Chinese from holding offshore accounts denominated in foreign currencies to service credit cards are detrimental to China's interests. Mr Lockhart makes no secret of MasterCard's interest in seeing regulations relaxed. "For us this would represent a great first step towards seeing a rate of return."

The MasterCard chief sees the main growth area for MasterCard in the early stages in the debit/ATM

(automatic teller machine) card market, because of the Chinese attachment to cash. Smart cards, or integrated circuit cards, also have considerable potential in a "cash-driven" society.

IC cards are being trialled in China's southern provinces, and are expected to spread rapidly throughout the country once given approval. The Chinese, worried about security, would be attracted to the IC card's safety features.

International credit card companies such as MasterCard and Visa are also keeping a close eye on China's much-vaunted Golden Bridge project, originally meant to provide a "super-highway" clearing system for both bank cards and non-bank cards by 2003.

But teething problems mean the project will probably take longer. In the meantime, the People's Bank of China's newly-established National Bank Card office has taken over responsibility for bank cards. Banks themselves are setting up their own bank card clearing systems, a vote of little confidence in the Golden Bridge project. The danger for China is that it will end up with a "dysfunctional" clearing system.

Mr Lockhart, on the other hand, is optimistic that order will be brought to potential chaos. "I've been impressed on a lot of different fronts by the aggressiveness of the Chinese to do the right thing and their concern about getting the right infrastructure in place."

Tony Walker

Ask most banks how you should invest to preserve your assets and you'll likely hear that a balanced diet is best for your long-term financial health.

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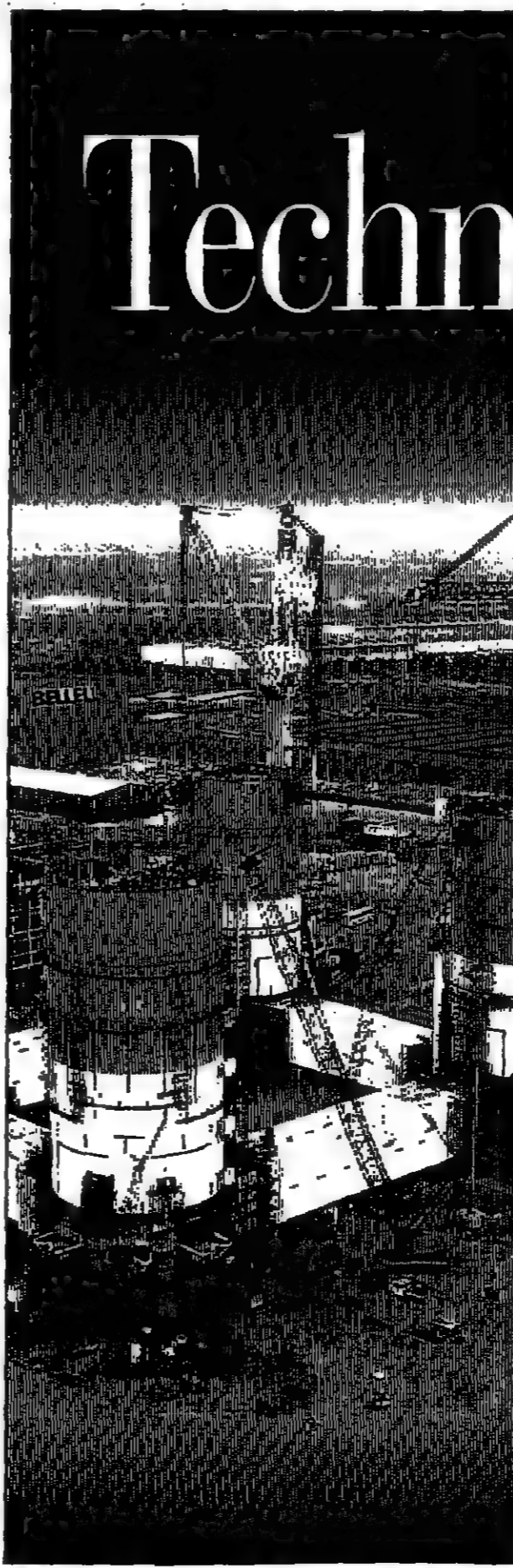
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BELLELI GROUP - Italy

Tambrands to shut plants in shake-up

The company also announced that Mr Edward Fogarty, chief executive, would take the additional post of chairman, succeeding Mr Howard Wenx, who is retiring at the age of 66.

Mr Thomas Mason, vice-president for international operations, will become chief operating officer, a new position.

The company had to be leaner, faster, and more efficient in building the Tampex brand if it was to go on beating much larger companies in its market, Mr Fogarty said.



sell rather than commit itself to the substantial investments needed to compete with WMX and Browning-Ferris Industries, which dominate the North American industry.

The group said strong performances in both the Belgian banking and insurance sectors had led to the first-half improvement.

Gross premium income increased 2.4 per cent to BF959.3bn. Life premiums increased from BF22.18bn to BF22.69bn, while non-life premiums increased from BF36.76bn to BF36.85bn.

Classical life premiums were stable, although short- and medium-term savings plans had suffered from low

Tabacalera agrees Koipe deal

Tabacalera, the state-controlled Spanish tobacco company, said it had agreed to sell its stake of almost 10 per cent in Koipe, the country's leading edible oil concern, to Eridania Bégin-Say, part of the Ferruzzi group, for Ptas26.2bn (\$48.6m).


The deal, which increases the Italian group's holding in Koipe to about 76 per cent, virtually completes Tabacalera's withdrawal from the food sector in order to concentrate on its core tobacco business. It said it was also in advanced negotiations to sell its 4.6 per cent stake in the Spanish sugar refiner, Ebro to the Ferruzzi group. Ebro sold its own 4.8 per cent stake in Koipe to the Ferruzzi group earlier this year. Tabacalera obtained its minority holding in Koipe as a result of a merger two years ago between Koipe and rival edible oil company Elosa.

David White, Madrid

BP

The country of BP in yesterday's survey of Europe's most respected companies should have been stated as 575

July 1998



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Mortgage Backed Floating Rate
Notes due December 2018

For the Interest Period from September 17, 1998 to December 17, 1998, the Note Rate has been determined at 6.28408% per annum. The interest payable on the relevant interest payment date, December 17, 1998 will be £576.18 per £24,348.48 nominal amount.
By: The Chase Manhattan Bank
London, Agent Bank

September 10, 1998

Yen 20,000,000,000

Marubeni International Finance plc

Bono Yen Guaranteed Notes due 1998

For the period from September 10, 1998 to March 31, 1997, the Notes will carry an interest rate of 1.05459% per annum with an interest amount of Yen 600,276 per Yen 100,000,000 Note.
The relevant interest payment date will be March 31, 1997.

Agent Bank:
RI
RANICHO PARKAS

The Générale of which France's Compagnie des Sucres owns nearly 68 per cent, is paying Bfr14,500 a share, or Bfr790n, for the combined 25 per cent stake.

Mr Jean-Pierre Gérard, Royale Belge managing director, said the insurance group would use the proceeds of the sale partly to cover the forecast Bfr800m costs of transition to a single European currency and of preparing information systems for the switch to the year 2000.

But other possibilities included increasing its 51

Royal PTT Nederland NV with its registered office in Groningen, The Netherlands



Interim dividend 1996

The Board of Management of Royal PTT Nederland NV (KPN) has set the 1996 interim dividend at NLG 1.- per ordinary share in cash. The Board has declared that 62 dividend rights will entitle shareholders to one ordinary share of NLG 10.- par value. The number of dividend rights has been established based on the closing price of KPN shares on the Amsterdam Stock Exchange on September 16, 1996.

Depending on the form of payment previously elected by each shareholder, the interim dividend will be paid out to such shareholder either entirely in cash or entirely in ordinary shares. Payment in ordinary shares may be charged against the additional paid-in capital or, if the shareholder so elects, against the other reserves.

The interim dividend will be payable on September 30, 1996.

In exchange for 62 dividend rights the holders of ordinary shares who have opted for payment in shares will receive one ordinary share of NLG 10.- par value, entitling them to a partial share of the 1996 net income and a full share of the net income in subsequent years. Dividend rights must be submitted to ABN AMRO Bank N.V. in Amsterdam, ING Bank N.V. in Amsterdam or Rabobank Nederland in Utrecht.

Shareholders who have opted for a dividend in cash will receive NLG 1.- on their dividend rights, less 25% dividend tax.

Holders of ordinary shares will receive payment of the dividend in the form previously elected through the institutions where the dividend shares were held in deposit at closing time on September 17, 1996.

The member firms of the Association for Security Transactions will receive the compensation stipulated in the 90-56 circular to enable shareholders to exchange their dividend rights free of commission.

The Board of Management

Groningen, September 17, 1996
Stationsplein 7

Next shares slip in spite of 12% rise in interim profits

By Christopher Price

Strong high street demand and the growing popularity of home shopping helped Next, the retail group, post a 12 per cent rise in pre-tax profits to £58m (£57.4m) in the six months to the end of July.

The rise was masked by an exceptional gain in last year's figures and operating profits rose 31 per cent to £49.8m.

Turnover rose 22 per cent to £406.4m. However, disappointment among some analysts over the rise in like-for-like sales, concerns over the consumer recovery and profit-taking combined to knock the shares, down 25.5p to 274.5p. Next's cash pile rose from £1.1bn to £1.43bn but Lord Wolfson of Sunningdale, chairman, was quick to damp speculation that Next was building up a war chest for an acquisition.

"Our cash position is only

5 per cent of our market capitalisation and supports our very progressive dividend policy. It also gives us flexibility for any other opportunities, such as the investment in our new distribution centre."

He also dismissed suggestions of a tie-up between Next's mail order business and the catalogue division of Great Universal Stores, a company he also chairs.

The high street retail business lifted operating profits 37 per cent to £30.1m on sales up 23 per cent at £273.2m. Mr David Jones, chief executive, said the retail environment was improving, although trading remained "challenging" in some areas. Like-for-like sales rose 9 per cent, slightly below analysts' expectations.

Next added an extra four stores year-on-year, and improved sales per square foot from £224 to £263. Lord Wolfson said that, with 306 stores, the group had



David Jones: trading remains challenging in some areas

reached near-saturation point in the UK and the challenge was in better use of space and expanding, where possible, existing stores.

Further growth was predicted for the Next Directory business, which increased operating profits 42 per cent to £11.8m on sales 23 per

cent higher at £20.4m. Next has also begun a personal loan scheme which had attracted £20m of business in its first few months. The company experienced mixed results overseas, despite sales growing 51 per cent.

Lex, Page 19

Fall in price of copper costs Wassall £8m as it slips 8% to £22m

By Rose Tieman

Falling copper prices cost Wassall £8.1m in the first half of 1996, leaving pre-tax profits at the conglomerate £2.9m, down from £10.9m (£8.9m).

But a 33 per cent rise in underlying operating profits, a 85 per cent interim dividend increase to 2.1p, and an upbeat statement helped the shares rise 15p to 307.5p.

Brokers said that despite the setback from copper prices, Wassall was still showing strong earnings growth. "These were very, very good results," said Mr Robert Morton of Charterhouse. "We have consistently ignored copper stock profits on the way up and the market is ignoring them on the way

down."

Despite its difficulties over raw material prices, General Cable, the US manufacturer of household wiring and telecommunications cables, acquired in June 1994, now accounts for the lion's share of Wassall's profits. It recorded a 54 per cent rise in operating profits, to £17.9m. Its sales were £245.5m in the six months to June 30, against £247m for the group as a whole.

Since December 1995, copper prices have fallen from 135 cents a pound to about 95 cents - a similar level to that prevailing in mid-1994. General Cable buys some \$500m of copper a year and its sales are expected to fall by about a quarter of that by value.

Prices of finished products are based on the previous day's copper price. So the risk of any rise or fall in

copper prices between the beginning and end of the manufacturing process is taken by Wassall.

Aided by lower prices, demand for cable is now rising strongly, said Mr Christopher Miller, chief executive. DAP, Wassall's US manufacturer of household fillers and sealants, lifted operating profits by 29 per cent to £4.8m. The closures business, which produces 70m plastic and aluminium bottle caps every year, saw operating profits stand still at £6m.

Mr Miller said the company's outlook was "very positive and gives us great reasons for the future". With net debt set to fall below £20m by the year end, Wassall was well placed to spend up to £200m acquiring more under-performing "mid-technology" companies, he said.

Pressure increases on Kepit to detail its plans

By Roger Taylor

The directors of Kepit are coming under pressure to publish full details of their plans to break up the £500m (£780m) fund. If they do not, investors may instead opt to accept a hostile bid for Kepit from a rival fund, TR European Growth.

In a move designed to ward off the Treg bid, Kepit, the Kleinwort Benson Private Investment Trust, announced two weeks ago its intention to break up the fund and pay cash back to shareholders.

But Treg has refused to withdraw its bid and contin-

ues to challenge Kepit to publish full details of its proposals.

One large investor in Kepit said yesterday it had decided to accept the Treg bid, because the directors were taking too long to publish their plans. The investor, a large institution which did not wish to be named, holds less than 3 per cent of the fund.

Most institutional investors are still thought to be against the Treg bid. At the first closing date for the bid only 1.02 per cent of shareholders had accepted.

Kepit described the result as dismal, but Treg has

decided to keep its bid open until October 4.

Both Kepit and Treg are offering to sell off the fund's assets and pay cash back to shareholders. Both are also offering shareholders an alternative investment fund. However, the winning plan will be the one which pays the highest cash value.

Kepit's plans involve lower costs than Treg's and so are expected to produce more cash. Because the break-up plans involve selling a large portfolio in one go, the assets will have to be sold at a discount to the market price, likely to be about 3 or 4 per cent.

Biotech group works on pig clone

By Simon Kuper

PPL Therapeutics, the Scottish biotechnology company that genetically engineers sheep to produce medicines in their milk, is hoping to announce a collaboration with a British academic group offering new technology to prevent humans from rejecting pig hearts, kidneys and possibly lungs.

PPL, which floated in June and has produced a cloned sheep called Tracy, aims also to clone pigs with organs suited to humans. Mr Ron James, managing director, said xenografts - animal-to-human transplants - could be "potentially more significant" for PPL than its lead product AAT, with applications in treating cystic fibrosis.

Mr James said US companies would probably achieve the first pig-to-human transplants in about two years. However, he added: "Our second generation products may be better than their first generation."

The waiting list for organ transplants was 30 times longer than the number of people who received transplants.

The number of organs available for transplant had fallen since motorcyclists had been made to wear helmets, he said. US hospitals charged each other about \$15,000 per organ for transplants.

The company hoped to find a marketing partner for AAT "somewhere at the end of 1997 or in 1998". AAT was expected to reach the market in about five years.

The company announced a pre-tax loss of £1.69m (£587,000 profit) on sales down 35 per cent at £2.13m for the first half of 1996.

Crédit local de France GENERAL MEETING OF BONDHOLDERS Notice of Meeting

For the purpose of the alliance with Crédit Commercial de Belgique, Crédit local de France will transfer to its subsidiary Local Finance all of its assets and liabilities, including all bonds issued by Crédit local de France. The transfer of this asset transfer, will have the same assets and liabilities which CLF currently has, and at the date of the transfer will take the trade name of "Crédit local de France", the existing Crédit local de France becoming "CLF Holding".

The general meeting has not been held on September 16, 1996. Holders of the bonds listed below, issued by Crédit local de France, are invited to attend the General Meeting of Bondholders on September 19, 1996, at 10.00 a.m. in the Grand Auditorium of the Grand Palais National, Paris.

Lead Manager and Fiscal Agent Banque Paribas Luxembourg

- LUF 2,000,000,000 7.875% Oct 1994 - Oct 1999 (ISIN Code XS 00 52827648)
- LUF 1,600,000,000 8% Dec 1994 - Dec 2000 (ISIN Code XS 00 53848346)

Lead Manager and Fiscal Agent Kredietbank S.A. Luxembourg/Genève

- LUF 1,000,000,000 10% Mar 1991 - Mar 1998 private placement

Lead Manager and Fiscal Agent Banque et Caisse d'Epargne de l'Etat, Luxembourg

- LUF 2,000,000,000 7.825% May 1995 - May 1999 (ISIN Code XS 00 56338454)

Lead Manager and Fiscal Agent Banque Générale du Luxembourg S.A.

- LUF 2,000,000,000 6.75% Aug 1995 - Oct 2000 (ISIN Code XS 00 58356824)

Lead Manager and Fiscal Agent Banque Internationale à Luxembourg S.A.

- LUF 2,000,000,000 6.5/8% Nov 1995 - Nov 2002 (ISIN Code XS 00 60495164)
- LUF 2,000,000,000 6.3/8% Jan 1996 - Jan 2003 (ISIN Code XS 00 62353445)
- LUF 2,000,000,000 5.3/4% Mar 1996 - May 2003 (ISIN Code XS 00 63591837)

are invited to attend the General Meeting to be held on October 3, 1996 at Banque Internationale à Luxembourg S.A., 69, route d'Esch, L-1470 Luxembourg, at 10.30 a.m. in accordance with article 308, of the French law of July 24, 1966 the agenda of the meeting will be as follows:

- Board of Directors' report on Crédit local de France's project to transfer all of its assets and liabilities to its subsidiary Local Finance.
- Approval of the transaction;
- Proxies.

Holders of bearer bonds must obtain a certificate attesting that their securities are held in a blocked account from the bank, stock or institution managing their account at least (5) days before the date of the General Meeting. Proxy forms will be sent to bondholders upon request from the Financial Agent in charge of each bond issue.

The board of Directors

MERRILL LYNCH EQUITY/ CONVERTIBLE SERIES

Société d'Investissement à Capital Variable
Registered Office: 69, route d'Esch, Luxembourg
R.C. Luxembourg B-29815

NOTICE TO SHAREHOLDERS

Shareholders are kindly invited to attend the general meetings to be held at the offices of Banque Internationale à Luxembourg S.A., 69, route d'Esch, Luxembourg on Friday, 27th September, 1996, at 4.00 p.m. with the following agenda:

A. Annual general meeting ("AGM"):

1. Reports of the Directors and of the Independent Auditor on the annual accounts for the period ended 31st May 1996;
2. Approval of the audited annual accounts as at 31st May 1996;
3. Declaration of dividends (if any) as recommended by the Directors;
4. Ratification of the co-optation of a Director;
5. Discharge to be granted to the Directors and to the Independent Auditor;
6. Election or re-election of Directors and re-appointment of the Independent Auditor;
7. Approval of the same remuneration of the non-affiliated Directors;
8. Miscellaneous.

B. Extraordinary general meeting ("EGM"):

1. Approval to change the fiscal year end from May 31st to August 31st, beginning as of the fiscal year starting June 1, 1996, and decision to extend the transitional fiscal year from June 1, 1996, to August 31, 1997;
2. Amendment of Article 25 to reflect such change and of Article 10 to set the AGM to the second Friday in December, for the first time in 1997;
3. Amendment of Article 20 to increase the minimum sizes of the Company's respective of its Portfolios' assets (presently at U.S.\$10 million, respectively, to U.S.\$3 million) to be terminated or merged by decision of the Directors in certain cases, so as to allow such decision(s) upon the assets of the Company falling for 30 consecutive days below U.S.\$25 million or the assets of a Portfolio falling for such duration below U.S.\$15 million.

Shareholders are advised that the ordinary annual general meeting requires no quorum of presence and decisions may be approved by a simple majority of the shares present and/or represented. In respect of the extraordinary general meeting, a quorum of 50 percent or of one-half of the shares issued is required at the first meeting and decisions may be approved by a two-thirds majority of the shares present and/or represented. If no quorum is reached, a second meeting would be convened which may decide without quorum requirements at the same two-thirds majority.

The Board of Directors

The Financial Times plans to publish a Survey on

Spanish Banking and Finance

on Tuesday, October 15.

For more information on advertising opportunities in this survey, please contact:

Ewa Placzek-Neves

Tel: +44 (0) 171 873 3725 Fax: +44 (0) 1717 873 3934

or Edward Macquisten or Maria Gonzalez:

Tel: +341 337 0061 Fax: +341 337 0062

or your usual Financial Times representative.

FT Surveys

NOTICE TO BONDHOLDERS OF Acer Incorporated US\$45,000,000 4 per cent Bonds due 2001 (The "Bonds")

Further to the notice to Bondholders dated May 13, 1996 relating to the conversion of the Bonds, this is to inform you that the Shares or Endorsement Certificates received upon conversion of the Bonds may, at the election of Bondholders, be deposited into a depository receipt facility in exchange for global depository receipts ("Share GDRs"), temporarily, the Endorsement Certificates ("ECs") each representing 1 share of Acer Incorporated ("the Company"). The Company has obtained permission from the ROC Securities and Exchange Commission for the shares received upon conversion of the Bonds to be deposited into such depository receipt facilities and Share GDRs issued.

Regarding the conversion of Bonds into Share GDRs, please be advised of the following:

1. The Company and Citibank, N.A. New York, as depository, have executed (i) a Deposit Agreement dated as of November 1, 1995 ("Share Deposit Agreement") and (ii) an Endorsement Certificate Deposit Agreement dated as of August 26, 1996 ("EC Deposit Agreement"). Copies of the Share Deposit Agreement and the EC Deposit Agreement are available for inspection at Citibank, N.A., 111 Wall Street, 5th Floor/Zone 2, New York, New York 10043, U.S.A.
2. Upon compliance with the terms of the EC Deposit Agreement, ECs issued upon the conversion of Bonds may be deposited with Citibank, N.A. New York, as depository under the EC Deposit Agreement (the "EC Depository"), for the issuance of Global Deposit Receipts each representing five ECs ("EC GDRs"). Upon the issuance by the Company of Share certificates in exchange for the deposited ECs, the EC GDRs representing such ECs will be deemed surrendered and the EC Depository will take reasonable steps to deposit such Shares under the Share Deposit Agreement for the issuance of Share GDRs.
3. When exercising their conversion right, the Bondholders should specify in the Conversion Notice (as defined in the Indenture) whether upon conversion of the Bonds they elect to receive Shares or to deposit the Shares into the depository receipt facility and receive Share GDRs. Failure to specify an option will be deemed to be an election not to deposit such Shares into the depository receipt facility and to receive Shares (temporarily, Endorsement Certificates) only.
4. For more information on the matters set forth herein, please contact the following:
Shareholders' Service Department
Acer Incorporated
Tel: (02) 501-7506, Fax: (02) 501-9162
Address: 3F, 135, Sec. 2, Chien Kuo N. Rd., Taipei, Taiwan, R.O.C.
Corporate Finance & Investment Management
Acer Incorporated
Tel: (02) 545-5299, Fax: (02) 719-8780
Address: 6F, 156, Sec. 3, Min Sheng E Rd., Taipei, Taiwan, R.O.C.
Securities & Trust Department
Citibank, Taipei Branch
Tel: (02) 247-1685, Fax: (02) 717-9209
Address: 4F, 52, Sec. 4, Min Sheng E Rd., Taipei, Taiwan, R.O.C.

Date: September 19, 1996.

CITIBANK

British Rail

Proposed Sale of National Railway Supplies

National Railway Supplies (NRS) is a business unit within the Central Services Division of British Railways Board and is being offered for sale.

Based at Crewe with subsidiary operations at York and Brighton, NRS provides a supply chain management and repair service to the rail industry in Great Britain including the supply of a wide range of signalling, telecommunication, permanent way and other infrastructure products.

- Key features of the business**
- Provides a materials supply service with all necessary design and specification requirements.
 - Provides a choice of new or service-exchange products or the repair of customers' goods.
 - Main customers are contractors appointed by British Rail to maintain the railway infrastructure.
 - Significant contracts with main customers up to 31 March 1999.
 - A warehousing operation at Crewe offering a 24-hour service with approximately 6,800 product lines available from stock.
 - Turnover (unaudited year to 31 March 1996) £59M 270
 - Employees at year end

Further information about the business and the sale process will be made available to appropriate enquirers subject to a confidentiality undertaking.

This advertisement is issued by the British Railways Board and has been approved solely for the purposes of Section 87 of the Financial Services Act 1986 by Price Waterhouse who are Statutory Auditors to BRS. Chartered Accountants in England and Wales to carry on investment business.

Price Waterhouse

The Commercial Department

Vendor Unit

مكتبة الامير

Offshore Insurances and Other Funds

Offshore Insurances and Other Funds

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NEW YORK STOCK EXCHANGE PRICES

[illegible][illegible]

High	Low	High	Low	% Vol.	% E	Index	High	Low	Change from Prev.
93	32	Stockholm	0.92	1.3	10	148	93%	26%	+1
94	35	Stockholm	0.64	1.1	10	104	43%	25%	+1
95	39	Stockholm	0.62	1.1	10	104	43%	25%	+1
96	40	Stockholm	0.62	1.1	10	104	43%	25%	+1
97	41	Stockholm	2.86	5.0	14	242	58%	30%	+1
98	42	Stockholm	0.40	0.6	7	181	15%	15%	+1
99	43	Stockholm	0.40	0.6	7	181	15%	15%	+1
100	44	Stockholm	0.40	0.6	7	181	15%	15%	+1
101	45	Stockholm	0.40	0.6	7	181	15%	15%	+1
102	46	Stockholm	1.41	1.1	25	345	35%	30%	+1
103	47	Stockholm	0.72	2.2	10	137	37%	24%	+1
104	48	Stockholm	0.72	2.2	10	137	37%	24%	+1
105	49	Stockholm	4.30	7.8	19	345	58%	31%	+1
106	50	Stockholm	2.06	3.6	12	616	56%	34%	+1
107	51	Stockholm	0.37	1.5	10	104	24%	24	+1
108	52	Stockholm	0.37	1.5	10	104	24%	24	+1
109	53	Stockholm	0.37	1.5	10	104	24%	24	+1
110	54	Stockholm	0.37	1.5	10	104	24%	24	+1
111	55	Stockholm	1.46	1.5	10	104	21%	21	+1
112	56	Stockholm	77	1	3200	3200	3200	3200	-100
113	57	Stockholm	1.22	3.0	11	265	26%	26%	+1
114	58	Stockholm	1.22	3.0	11	265	26%	26%	+1
115	59	Stockholm	1.22	3.0	11	265	26%	26%	+1
116	60	Stockholm	1.22	3.0	11	265	26%	26%	+1
117	61	Stockholm	1.22	3.0	11	265	26%	26%	+1
118	62	Stockholm	1.22	3.0	11	265	26%	26%	+1
119	63	Stockholm	1.22	3.0	11	265	26%	26%	+1
120	64	Stockholm	1.22	3.0	11	265	26%	26%	+1
121	65	Stockholm	1.22	3.0	11	265	26%	26%	+1
122	66	Stockholm	1.22	3.0	11	265	26%	26%	+1
123	67	Stockholm	1.22	3.0	11	265	26%	26%	+1
124	68	Stockholm	1.22	3.0	11	265	26%	26%	+1
125	69	Stockholm	1.22	3.0	11	265	26%	26%	+1
126	70	Stockholm	1.22	3.0	11	265	26%	26%	+1
127	71	Stockholm	1.22	3.0	11	265	26%	26%	+1
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130	74	Stockholm	1.22	3.0	11	265	26%	26%	+1
131	75	Stockholm	1.22	3.0	11	265	26%	26%	+1
132	76	Stockholm	1.22	3.0	11	265	26%	26%	+1
133	77	Stockholm	1.22	3.0	11	265	26%	26%	+1
134	78	Stockholm	1.22	3.0	11	265	26%	26%	+1
135	79	Stockholm	1.22	3.0	11	265	26%	26%	+1
136	80	Stockholm	1.22	3.0	11	265	26%	26%	+1
137	81	Stockholm	1.22	3.0	11	265	26%	26%	+1
138	82	Stockholm	1.22	3.0	11	265	26%	26%	+1
139	83	Stockholm	1.22	3.0	11	265	26%	26%	+1
140	84	Stockholm	1.22	3.0	11	265	26%	26%	+1
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142	86	Stockholm	1.22	3.0	11	265	26%	26%	+1
143	87	Stockholm	1.22	3.0	11	265	26%	26%	+1
144	88	Stockholm	1.22	3.0	11	265	26%	26%	+1
145	89	Stockholm	1.22	3.0	11	265	26%	26%	+1
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147	91	Stockholm	1.22	3.0	11	265	26%	26%	+1
148	92	Stockholm	1.22	3.0	11	265	26%	26%	+1
149	93	Stockholm	1.22	3.0	11	265	26%	26%	+1
150	94	Stockholm	1.22	3.0	11	265	26%	26%	+1
151	95	Stockholm	1.22	3.0	11	265	26%	26%	+1
152	96	Stockholm	1.22	3.0	11	265	26%	26%	+1
153	97	Stockholm	1.22	3.0	11	265	26%	26%	+1
154	98	Stockholm	1.22	3.0	11	265	26%	26%	+1
155	99	Stockholm	1.22	3.0	11	265	26%	26%	+1
156	100	Stockholm	1.22	3.0	11	265	26%	26%	+1

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34	2.50	2.4	71	130	41	40%	40%
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Year	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	
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Aluminum	1.20	1.41	1.62	1.83	2.04	2.25	2.46	2.67	2.88	3.09	3.30	3.51	3.72	3.93	4.14	4.35	4.56	4.77	4.98	5.19	5.40	5.61	5.82	6.03	6.24	6.45	6.66	6.87	7.08	7.29	7.50	7.71	7.92	8.13	8.34	8.55	8.76	8.97	9.18	9.39	9.60	9.81	10.02	10.23	10.44	10.65	10.86	11.07	11.28	11.49	11.70	11.91	12.12	12.33	12.54	12.75	12.96	13.17	13.38	13.59	13.80	14.01	14.22	14.43	14.64	14.85	15.06	15.27	15.48	15.69	15.90	16.11	16.32	16.53	16.74	16.95	17.16	17.37	17.58	17.79	18.00	18.21	18.42	18.63	18.84	19.05	19.26	19.47	19.68	19.89	20.10	20.31	20.52	20.73	20.94	21.15	21.36	21.57	21.78	21.99	22.20	22.41	22.62	22.83	23.04	23.25	23.46	23.67	23.88	24.09	24.30	24.51	24.72	24.93	25.14	25.35	25.56	25.77	25.98	26.19	26.40	26.61	26.82	27.03	27.24	27.45	27.66	27.87	28.08	28.29	28.50	28.71	28.92	29.13	29.34	29.55	29.76	29.97	30.18	30.39	30.60	30.81	31.02	31.23	31.44	31.65	31.86	32.07	32.28	32.49	32.70	32.91	33.12	33.33	33.54	33.75	33.96	34.17	34.38	34.59	34.80	35.01	35.22	35.43	35.64	35.85	36.06	36.27	36.48	36.69	36.90	37.11	37.32	37.53	37.74	37.95	38.16	38.37	38.58	38.79	39.00	39.21	39.42	39.63	39.84	40.05	40.26	40.47	40.68	40.89	41.10	41.31	41.52	41.73	41.94	42.15	42.36	42.57	42.78	42.99	43.20	43.41	43.62	43.83	44.04	44.25	44.46	44.67	44.88	45.09	45.30	45.51	45.72	45.93	46.14	46.35	46.56	46.77	46.98	47.19	47.40	47.61	47.82	48.03	48.24	48.45	48.66	48.87	49.08	49.29	49.50	49.71	49.92	50.13	50.34	50.55	50.76	50.97	51.18	51.39	51.60	51.81	52.02	52.23	52.44	52.65	52.86	53.07	53.28	53.49	53.70	53.91	54.12	54.33	54.54	54.75	54.96	55.17	55.38	55.59	55.80	56.01	56.22	56.43	56.64	56.85	57.06	57.27	57.48	57.69	57.90	58.11	58.32	58.53	58.74	58.95	59.16	59.37	59.58	59.79	60.00	60.21	60.42	60.63	60.84	61.05	61.26	61.47	61.68	61.89	62.10	62.31	62.52	62.73	62.94	63.15	63.36	63.57	63.78	63.99	64.20	64.41	64.62	64.83	65.04	65.25	65.46	65.67	65.88	66.09	66.30	66.51	66.72	66.93	67.14	67.35	67.56	67.77	67.98	68.19	68.40	68.61	68.82	69.03	69.24	69.45	69.66	69.87	70.08	70.29	70.50	70.71	70.92	71.13	71.34	71.55	71.76	71.97	72.18	72.39	72.60	72.81	73.02	73.23	73.44	73.65	73.86	74.07	74.28	74.49	74.70	74.91	75.12	75.33	75.54	75.75	75.96	76.17	76.38	76.59	76.80	77.01	77.22	77.43	77.64	77.85	78.06	78.27	78.48	78.69	78.90	79.11	79.32	79.53	79.74	79.95	80.16	80.37	80.58	80.79	81.00	81.21	81.42	81.63	81.84	82.05	82.26	82.47	82.68	82.89	83.10	83.31	83.52	83.73	83.94	84.15	84.36	84.57	84.78	84.99	85.20	85.41	85.62	85.83	86.04	86.25	86.46	86.67	86.88	87.09	87.30	87.51	87.72	87.93	88.14	88.35	88.56	88.77	88.98	89.19	89.40	89.61	89.82	90.03	90.24	90.45	90.66	90.87	91.08	91.29	91.50	91.71	91.92	92.13	92.34	92.55	92.76	92.97	93.18	93.39	93.60	93.81	94.02	94.23	94.44	94.65	94.86	95.07	95.28	95.49	95.70	95.91	96.12	96.33	96.54	96.75	96.96	97.17	97.38	97.59	97.80	98.01	98.22	98.43	98.64	98.85	99.06	99.27	99.48	99.69	99.90	100.11	100.32	100.53	100.74	100.95	101.16	101.37	101.58	101.79	102.00	102.21	102.42	102.63	102.84	103.05	103.26	103.47	103.68	103.89	104.10	104.31	104.52	104.73	104.94	105.15	105.36	105.57	105.78	105.99	106.20	106.41	106.62	106.83	107.04	107.25	107.46	107.67	107.88	108.09	108.30	108.51	108.72	108.93	109.14	109.35	109.56	109.77	109.98	110.19	110.40	110.61	110.82	111.03	111.24	111.45	111.66	111.87	112.08	112.29	112.50	112.71	112.92	113.13	113.34	113.55	113.76	113.97	114.18	114.39	114.60	114.81	115.02	115.23	115.44	115.65	115.86	116.07	116.28	116.49	116.70	116.91	117.12	117.33	117.54	117.75	117.96	118.17	118.38	118.59	118.80	119.01	119.22	119.43	119.64	119.85	120.06	120.27	120.48	120.69	120.90	121.11	121.32	121.53	121.74	121.95	122.16	122.37	122.58	122.79	123.00	123.21	123.42	123.63	123.84	124.05	124.26	124.47	124.68	124.89	125.10	125.31	125.52	125.73	125.94	126.15	126.36	126.57	126.78	126.99	127.20	127.41	127.62	127.83	128.04	128.25	128.46	128.67	128.88	129.09	129.30	129.51	129.72	129.93	130.14	130.35	130.56	130.77	130.98	131.19	131.40	131.61	131.82	132.03	132.24	132.45	132.66	132.87	133.08	133.29	133.50	133.71	133.92	134.13	134.34	134.55	134.76	134.97	135.18	135.39	135.60	135.81	136.02	136.23	136.44	136.65	136.86	137.07	137.28	137.49	137.70	137.91	138.12	138.33	138.54	138.75	138.96	139.17	139.38	139.59	139.80	140.01	140.22	140.43	140.64	140.85	141.06	141.27	141.48	141.69	141.90	142.11	142.32	142.53	142.74	142.95	143.16	143.37	143.58	143.79	144.00	144.21	144.42	144.63	144.84	145.05	145.26	145.47	145.68	145.89	146.10	146.31	146.52	146.73	146.94	147.15	147.36	147.57	147.78	147.99	148.20	148.41	148.62	148.83	149.04	149.25	149.46	149.67	149.88	150.09	150.30	150.51	150.72	150.93	151.14	151.35	151.56	151.77	151.98	152.19	152.40	152.61	152.82	153.03	153.24	153.45	153.66	153.87	154.08	154.29	154.50	154.71	154.92	155.13	155.34	155.55	155.76	155.97	156.18	156.39	156.60	156.81	157.02	157.23	157.44	157.65	157.86	158.07	158.28	158.49	158.70	158.91	159.12	159.33	159.54	159.75	159.96	160.17	160.38	160.59	160.80	161.01	161.22	161.43	161.64	161.85	162.06	162.27	162.48	162.69	162.90	163.11	163.32	163.53	163.74	163.95	164.16	164.37	164.58	164.79	165.00	165.21	165.42	165.63	165.84	166.05	166.26	166.47	166.68	166.89	167.10	167.31	167.52	167.73	167.94	168.15	168.36	168.57	168.78	168.99	169.20	169.41	169.62	169.83	170.04	170.25	170.46	170.67	170.88	171.09	171.30	171.51	171.72	171.93	172.14	172.35	172.56	172.77	172.98	173.19	173.40	173.61	173.82	174.03	174.24	174.45	174.66	174.87	175.08	175.29	175.50	175.71	175.92	176.13	176.34	176.55	176.76	176.97	177.18	177.39	177.60	177.81	178.02	178.23	178.44	178.65	178.86	179.07	179.28	179.49	179.70	179.91	180.12	180.33	180.54	180.75	180.96	181.17	181.38	181.59	181.80	182.01	182.22	182.43	182.64	182.85	183.06	183.27	183.48	183.69	183.90	184.11	184.32	184.53	184.74	184.95	185.16	185.37	185.58	185.79	186.00	186.21	186.42	186.63	186.84	187.05	187.26	187.47	187.68	187.89	188.10	188.31	188.52	188.73	188.94	189.15	189.36	189.57	189.78	189.99	190.20	190.41	190.62	190.83	191.04	191.25	191.46	191.67	191.88	192.09	192.30	192.51	192.72	192.93	193.14	193.35	193.56	193.77	193.98	194.19	194.40	194.61	194.82	195.03	195.24	195.45	195.66	195.87	196.08	196.29	196.50	196.71	196.92	197.13	197.34	197.55	197.76	197.97	198.18	198.39	198.60	198.81	199.02	199.23	199.44	199.65	199.86	200.07	200.28	200.49	200.70	200.91	201.12	201.33	201.54	201.75	201.96	202.17	202.38	202.59	202.80	203.01	203.22	203.43	203.64	203.85	204.06	204.27	204.48	204.69	204.90	205.11	205.32	205.53	205.74	205.95	206.16	206.37	206.58	206.79	207.00	207.21	207.42	207.63	207.84	208.05	208.26	208.47	208.68	208.89	209.10	209.31	209.52	209.73	209.94	210.15	210.36	210.57	210.78	210.99	211.20	211.41	211.62	211.83	212.04	212.25	212.46	212.67	212.88	213.09	213.30	213.51	213.72	213.93	214.14	214.35	214.56	214.77	214.98	215.19	215.40	215.61	215.82	216.03	216.24	216.45	216.66	216.87	217.08	217.29	217.50	217.71	217.92	218.13	218.34	218.55	218.76	218.97	219.18	219.39	219.60	219.81	220.02	220.23	220.44	220.65	220.86	221.07	221.28	221.49	221.70	221.91	222.12	222.33	222.54	222.75	222.96	223.17	223.38	223.59	223.80	224.01	224.22	224.43	224.64	224.85	225.06	225.27	225.48	225.69	225.90	226.11	226.32	226.53	226.74	226.95	227.16	227.37	227.58	227.79	228.00	228.21	228.42	228.63	228.84	229.05	229.26	229.47	229.68	229.89	230.10	230.31	230.52	230.73	230.94	231.15	231.36	231.57	231.78	231.99	232.20	232.41	232.62	232.83	233.04	233.25	233.46	233.67	233.88	234.09	234.30	234.51	234.72	234.93	235.14	235.35	235.56	235.77	235.98	236.19	236.40	236.61	236.82	237.03	237.24	237.45	237.66	237.87	238.08	238.29	238.50	238.71	238.92	239.13	239.34	239.55	239.76	239.97	240.18	240.39	240.60	240.81	241.02	241.23	241.44	241.65	241.86	242.07	242.28	242.49	242.70	242.91	243.12	243.33	243.54	243.75	243.96	244.17	244.38	244.59	244.80	245.01	245.22	245.43	245.64	245.85	246.06	246.27	246.48	246.69	246.90	247
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